STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

FC) RM	3

AMENDED REPORT

DIV. OF OIL, GAS & MINING

									(highlight o	changes)
	-	APPLICAT	ION FO	R PERMIT	TO DRILL			5. MINERAL LEAS ML-4707	_ []	s. surface: State
1A. TYPE OF W	vork: D	RILL 🗸 🛚 I	REENTER	DEEPE	N 🔲			7. IF INDIAN, ALL	OTTEE OR TRI	BE NAME:
B. TYPE OF W	ELL: OIL	GAS 🗸	OTHER	s	INGLE ZONE	MULTIPLE ZON	VE 🔽	8. UNIT of CA AGI	Λ	
2. NAME OF OF								9. WELL NAME an	Cang	,
3. ADDRESS OF	Resources, L	.LC			·····			East Benc		
	St., Ste 1500	_{CiTY} Denve	r e	TATE CO ZIP 8	0220	PHONE NUMBER: (303) 350-5114		10. FIELD AND PO		CAT:
	F WELL (FOOTAGE:	S)	30505	χ		22937		11. QTR/QTR, SEC		SHIP, RANGE,
AT SURFACE:	524' FNL -	1801' FEL	44090					MERIDIAN: NWNE 32	2 118	22⊑
	D PRODUCING ZON		Same) '	109.4	75124		14441412 02	- 110	22L
14. DISTANCE I	N MILES AND DIREC	CTION FROM NEAR	EST TOWN OR	POST OFFICE:		·		12. COUNTY:	1	3. STATE:
62.0 Sou	ıth of Vernal,	UT						Uintah	ŀ	UTAH
	O NEAREST PROPE	ERTY OR LEASE LIN	NE (FEET)	16. NUMBER	OF ACRES IN LEA	SE:	17. NI	JMBER OF ACRES	ASSIGNED TO	THIS WELL:
524'						640	l			40 acres
APPLIED FO	O NEAREST WELL (R) ON THIS LEASE ((DRILLING, COMPLE (FEET)	ETED, OR	19. PROPOSI	D DEPTH:		20. BC	OND DESCRIPTION:		
1000' +	S (SHOW WHETHER	DE 07 00 570				8,325		.B0008031		
6108'	RT-KB	: DF, KT, GR, ETC.):		8/1/200	MATE DATE WOR	K WILL START:	1	TIMATED DURATIO	N:	
	IXI-KD		-	1 0/1/200			20	days ————		
24.			PROPO	SED CASING	AND CEMEN	TING PROGRAM				
SIZE OF HOLE	CASING SIZE, G	RADE, AND WEIGH	T PER FOOT	SETTING DEPTH		CEMENT TYPE, QUA	ANTITY, '	YIELD, AND SLURR	Y WEIGHT	
20"	14"	line pipe		40	3 yards	_	Read	/ Mix		
11"	8-5/8"	J-55	24#	2,000	Premium	Lead	18	3 sxs	3.50	11.
					Premium	Tail	183	3 sxs	1.15	15.8
7-7/8"	4-1/2"	N-80	11.6#	8,325	Class G		140	sxs	3.3	11.0
					50/50 Poz	Class G	916	sxs	1.56	14.
	 				<u> </u>					
					1					
25.				ATTA	CHMENTS					
VERIFY THE FOLI	LOWING ARE ATTAC	CHED IN ACCORDA	NCE WITH THE	UTAH OIL AND GAS (ONSERVATION G	SENERAL RULES:		-		
WELL PLA	T OR MAP PREPAR	RED BY LICENSED 5	SUBVEVOR OR	ENGINEED		MPLETE DRILLING PLAN				
										
EVIDENCI	E OF DIVISION OF V	VATER RIGHTS APP	-ROVAL FOR US	SE OF WATER	FOF	RM 5, IF OPERATOR IS PEF	RSON OF	COMPANY OTHER	: THAN THE LE	ASE OWNER
	Alvin D	(Al) Arlian				l and an an D				
NAME (PLEASE P	Alvin R.	(AI) Alliali			TITLE	Landman - Reg	Julato	ry Specialist		
SIGNATURE _		5		2	DATE	6/8/2006				
his space for State	use only)				Approve	d by the				
					Utah Div	rision of				
	42	3-047-38	400	C	ii, Gas a	nd Mining		D _	~= !\	
API NUMBER ASSI	GNED:	041-08	2:10		APPROVAL:	\sim		KE	CEIV	=U
				Date	· 00-1	2-06/	\		N 1 2 20	NG
1/2001)				(See instruction		A THIN	\			

(11/2001)

T11S, R22E, S.L.B.&M. Found 1923 Brass Cap 0.2' above ground. Pile of Stones $N89^{\circ}55^{\circ}W - 80.12$ (G.L.O.) and Steel Post. N89'50'40"W - 2646.13' (Meas.) Found 1923 Bross Cap 1.2' above ground. Pile of Stones 1801 Proposed DRILLING WINDOW **WELL LOCATION:** East Bench 11-22-31-32 6 ELEV. UNGRADED GROUND = 6095.0' (G.L.O.) (G.L. N0.03,W N0.03,M Found 1923 Bross Cap 1.0' above ground, Pile of Stones. N89°57'W (G.L.O.)

■ SECTION CORNERS LOCATED

BASIS OF ELEVATION IS TRI—STA JEK 18 1966

LOCATED IN THE NE 1/4 OF SECTION 29, T12S,

R23E, S.L.B.&M. THE ELEVATION OF THIS

TRI—STA IS SHOWN ON THE COOPER CANYON 7.5

MIN. QUADRANGLE AS BEING 6088'

NAD 83 Autonomous

LATITUDE = 39° 49′ 22.62″

LONGITUDE = 109° 28′ 33.13″

East Bench 11-22-31-32 (Proposed Well Head)

ENDURING RESOURCES

WELL LOCATION, East Bench 11-22-31-32, LOCATED AS SHOWN IN THE NW 1/4 NE 1/4 OF SECTION 32, T11S, R22E, S.L.B.&M. UINTAH COUNTY, UTAH.



NOTES:

- 1. Well footages are measured at right angles to the Section Lines.
- 2. Bearings are based on Global Positioning Satellite observations.

THIS IS TO CERTIFY THAT THE CARBON PLAT WAS PREPARED FROM FIELD NOTES TO LAND THE SURVEYS MADE BY ME OR UNDEROWN SUBERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELLER NO.362251

REGISTRED LAND SHEW FOR REGISTRATION OF THE STATE OF UTAH

TIMBERLINE LAND SURVEYING, INC.

38 WEST 100 NORTH. - VERNAL, UTAH 84078

	30) 703 1303	
DATE SURVEYED: 05-19-06	SURVEYED BY: K.R.K.	SHEET
DATE DRAWN: 05-30-06	DRAWN BY: M.W.W.	2
SCALE: 1" = 1000'	Date Last Revised:	OF 10

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office P.O. Box 45155 Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

June 20, 2006

Memorandum

To:

Assistant District Manager Minerals, Vernal District

From:

Michael Coulthard, Petroleum Engineer

Subject:

2006 Plan of Development Buck Camp Unit, Uintah County,

Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2006 within the Buck Camp Unit, Uintah County, Utah.

API#

WELL NAME

LOCATION

(Proposed PZ MesaVerde)

43-047-38287 Sand Wash 12-22-14-36 Sec 36 T12S R22E 0502 FSL 0821 FWL 43-047-38288 Sand Wash 12-22-13-36 Sec 36 T12S R22E 1809 FSL 0668 FWL 43-047-38273 East Bench 11-22-31-32 Sec 32 T11S R22E 0524 FNL 1801 FEL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File - Buck Camp Unit

Division of Oil Gas and Mining

Central Files Agr. Sec. Chron Fluid Chron



475 17TH Street Suite 1500 Denver Colorado 80202 Telephone 303 573-1222 Fax 303 573 0461

June 8, 2006

Utah Division of Oil, Gas and Mining 1594 West North Temple, Suite 1210 P. O. Box 145801 Salt Lake City, Utah 84114-5801

Attn.: Ms. Diana Whitney

RE: Enduring Resources, LLC

East Bench 11-22-31-32 NW-NE 32-11S-22E State Lease: ML-47076 Uintah County, Utah

Dear Ms. Whitney:

Enclosed are two original applications to drill concerning the above-referenced proposed well. This information was also submitted to SITLA.

Enduring Resources, LLC is requesting the Utah Division of Oil, Gas and Mining to hold this application and all future information as confidential.

If any questions arise or additional information is required, please contact me at 303-350-5114.

Very truly yours,

ENDURING RESOURCES, LLC

Alvin R. (Al) Arlian

Landman-Regulatory Specialist

ara Enclosures:

cc: SITLA w/ attachments

RECEIVED
JUN 1 2 2006

Enduring Resources, LLC East Bench 11-22-31-32 NW-NE 32-11S-22E Uintah County, Utah

State Lease: ML-47076

ONSHORE ORDER 1 - DRILLING PLAN

1. <u>Estimated Tops of Geological Markers:</u>

Formation	Depth (K.B.)
Uinta	Surface
Green River	1168
Wasatch	3708
Mesaverde	5913

2. Estimated Depths of Anticipated Water, Oil, Gas or Other Minerals:

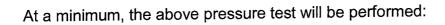
Substance	Formation	Depth (K.B.)
	KB-Uinta Elevation: 6108'	
Oil / Gas	Green River	1168
Oil /Gas	Wasatch	3708
Oil /Gas	Mesaverde	5913
0117000	Estimated TD	8325

A 11" hole will be drilled to approximately 2000 feet. The depth will be determined by the depth that the Birds Nest zone is encountered. The hole will be drilled 400 feet beyond the top of the Birds Nest zone and surface casing will be set.

3. Pressure Control Equipment: (3000 psi schematic attached)

- A. Type: Eleven (11) inch double gate hydraulic BOP with eleven (11) inch annular preventer on 3,000 psi casinghead, with 3,000 psi choke manifold equipped per the attached diagram. BOPE as specified in *Onshore Oil & Gas Order Number 2.* A PVT, stroke counter and flow sensor will be installed to check for flow and monitor pit volume.
- B. Pressure Rating: 3,000 psi BOPE
- C. Kelly will be equipped with upper and lower Kelly valves.
- D. Testing Procedure: Annular Preventer

At a minimum, the annular preventer will be pressure tested to 50% of the stack rated working pressure for a period of ten (10) minutes or until provisions of the test are met, whichever is longer.



- 1. When the annular preventer is initially installed;
- 2. Whenever any seal subject to test pressure is broken;
- 3. Following related repairs; and
- 4. At thirty (30) day intervals.

In addition to the above, the annular preventer will be functionally operated at least weekly.

Blow-Out Preventer

At a minimum, the BOP, choke manifold, and related equipment will be pressure tested to the approved working pressure of the BOP stack (if isolated from the surface casing by a test plug) or to 70% of the internal yield strength of the surface casing (if the BOP is not isolated from the casing by a test plug). Pressure will be maintained for a period of at least ten (10) minutes or until the requirements of the test are met, whichever is longer.

At a minimum, the above pressure test will be performed:

- 1. When the BOP is initially installed;
- 2. Whenever any seal subject to test pressure is broken;
- 3. Following related repairs; and
- 4. At thirty (30) day intervals.

In addition to the above, the pipe and blind rams will be activated each trip, but not more than once each day. All BOP drills and tests will be recorded in the IADC driller's log.

E. Miscellaneous Information:

The blowout preventer and related pressure control equipment will be installed, tested and maintained in compliance with the specifications in and requirements of *Onshore Oil & Gas Order Number 2*.

4. Proposed Casing & Cementing Program:

A. Casing Program: All New

Hole Size	Casing Size	Wt./Ft.	Grade	Joint	Depth Set (MD)
20"	14" O.D.		······		40' (GL)
11"	8-5/8"	24#	J-55	ST&C	0 – 2,016' (KB) est.
7-7/8"	4-1/2"	11.6#	N-80	LT&C	0 – 8325' (KB)

The surface casing will have guide shoe, 1 joint, insert float collar. Centralize the shoe joint with bowspring centralizers in the middle and top of the joint and the next16 joints with bowspring centralizers on every other collar (8 centralizers total). Thread lock guide shoe.



Casing string(s) will be pressure tested to 0.22 psi/foot of casing string length or 1500 psi, whichever is greater (not to exceed 70% of the internal yield strength of the casing), after cementing and prior to drilling out from under the casing shoe.

B. Casing Design Parameters:

		0-11(:)/05	Duret (poi)/SE	Tension(mlbs)/SF
Depth (MD)	Casing	Collapse(psi)/SF	Burst (psi)/SF	Tension(mins)/Si
40' (GL)	14" OD			
2016' (KB)	8-5/8", 24#/ft, J55, STC	1370/1.52(a)	2950/3.28(b)	244/5.81(c)
8325' (KB)	4-1/2", 11.6#/ft, N-80, LTC	6350/1.47 (d)	7780/1.96 (e)	223/2.69(f)

- (a.) based on full evacuation of pipe with 8.6 ppg fluid on annulus
- (b.) based on 8.6 ppg gradient with no fluid on annulus
- (c.) based on casing string weight in 8.6 ppg mud
- (d.) based on full evacuation of pipe with 10.0 ppg fluid on annulus
- (e.) based on 9.2 ppg gradient, gas to surface, with no fluid on annulus, no gas gradient
- (f.) based on casing string weight in 9.2 ppg mud

PROPOSED CEMENTING PROGRAM

Surface Casing (if well will circulate)-Cemented to surface

CASING	SLURRY	FT. of FILL	CEMENT TYPE	SXS	EXCESS (%)	WEIGHT (ppg)	YIELD (ft ³ /sx)
8-5/8"	Lead	1516	Premium cement + 16% gel + 0.25 pps celloflake	138	25%	11.1	3.50
8-5/8"	Tail	500	Premium cement + 2% CaC ₂ + 0.25 pps celloflake	138	25%	15.8	1.15

A cement top job is required if cement fallback is greater than 10' below ground level. Top job (weight 15.8 ppg, yield 1.15 ft³/sx) cement will be premium cement w/ 3% CaCl₂.+0.25 pps celloflake. Volume as required

Surface Casing (if well will not circulate) - Cemented to surface

CASING	SLURRY	FT. of FILL	CEMENT TYPE	SXS	EXCESS (%)	WEIGHT (ppg)	YIELD (ft ³ /sx)
8-5/8"	Lead	500	Premium cement + 2% CaCl ₂ + 0.25 pps celloflake	138	25	15.8	1.15
8-5/8"	Top job	As req.	Premium cement + 3% CaCl ₂ + 0.25 pps celloflake	As Req.		15.8	1.15



Production Casing and Liner - Cemented TD to 300' above base of surface casing

CASING	SLURRY	FT. of FILL	CEMENT TYPE	SXS	EXCESS (%)	WEIGHT (ppg)	YIELD (ft³/sx)
4-1/2"	Lead	1592	Class "G" + 5% NaCl + 12% Gel + 0.25 pps celloflake + 0.2% antifoam + 0.25% fluid loss + 1% extender	140	25	11.0	3.3
4-1/2"	Tail	5017	50/50 POZ Class G + 2% gel +1% CaCl ₂ + 0.2% dispersant + 0.2% fluid loss + 0.1% antifoam	916	25	14.3	1.56

Cement volumes for the 4-1/2" Production Casing will be calculated to provide a top of cement to 300' above base of surface casing. Cement volumes are approximate and were calculated under the assumption that a gauge hole will be achieved. Actual cement volumes may vary due to variations in the actual hole size and will be determined by running a caliper log on the drilled hole. Actual cement types may vary due to hole conditions and cement contractor used.

All waiting on cement (WOC) times will be adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drilling out.

5. <u>Drilling Fluids (mud) Program:</u>

Interval	Mud Weight	Fluid Loss	Viscosity	Mud Type
(MD)				
0' - 2016' (KB)		No cntrl		Air/mist
2000'-3000' (KB)	8.4-8.6	No cntrl	28-36	Water
3000'-8325' (KB)	8.8-9.8	8 - 10 ml	32-42	Water/Gel

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blowout will be available at the well site during drilling operations.

6. <u>Evaluation Program:</u>

Tests:

No tests are currently planned.

Coring:

No cores are currently planned.

Samples:

No sampling is currently planned.



Logging

- Dual Induction SFL /Gamma Ray/Caliper/SP/TDLT/CNL/ML TD to Base Surface Casing
- Cement Bond Log / Gamma Ray:
 TD to Base of Surface Casing or Top of Cement if below Base of Surface Casing

Stimulation: A stimulation or frac treatment will be designed for completion of this well based on openhole log analysis. The drill site, as approved, will be sufficient size to accommodate all completion activities.

7. Abnormal Conditions:

No abnormal temperatures or pressures are anticipated. No H_2S has been encountered or known to exist from previous wells drilled to similar depths in the general area.

Maximum anticipated bottom hole pressure equals approximately 4,329 psi (calculated at 0.52psi/foot of hole) and maximum anticipated surface pressure equals approximately 2,498 psi (anticipated bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot of hole).

8. Anticipated Starting Dates:

- Anticipated Commencement Date- Within one year of APD issue.
- Drilling Days Approximately 10 days
- Completion Days Approximately 10 days
- Anticipate location construction within 30 days of permit issue.

9. Variances:

None anticipated

10. Other:

A Cultural Resource Inventory and Paleontology reconnaissance shall be conducted for the well location, access route and pipeline. The reports shall be submitted to the Division of Oil, Gas and Mining and the School and Institutional Trust lands Administration upon their receipt.

Single Shot directional surveys will be dropped every 2000 feet to monitor hole angle.

ENDURING RESOURCES EAST BENCH 11-22-31-32 Section 32, T11S, R22E, S.L.B.&M.

FROM THE INTERSECTION OF U.S. HIGHWAY 40 AND 500 EAST STREET IN VERNAL, UTAH PROCEED IN AN EASTERLY THEN SOUTHERLY DIRECTION ALONG U.S. HIGHWAY 40 APPROXIMATELY 3.3 MILES TO THE JUNCTION OF STATE HIGHWAY 45; EXIT RIGHT AND PROCEED IN A SOUTHERLY DIRECTION ALONG STATE HIGHWAY 45 APPROXIMATELY 20.1 MILES TO ITS JUNCTION WITH THE GLEN BENCH ROAD (COUNTY B ROAD 3260). EXIT RIGHT AND PROCEED IN A SOUTHWESTERLY DIRECTION ALONG COUNTY B ROAD 3260 APPROXIMATELY 15.0 MILES TO THE MOUNTAIN FUEL BRIDGE. CONTINUE SOUTHWESTERLY ALONG COUNTY B ROAD 3260 APPROXIMATELY 9.4 MILES TO ITS INTERSECTION WITH THE BITTER CREEK ROAD (COUNTY B ROAD 4120). EXIT LEFT AND PROCEED IN A SOUTHEASTERLY DIRECTION ALONG COUNTY B ROAD 4120 APPROXIMATELY 4.6 MILES TO ITS INTERSECTION WITH THE EAST BENCH ROAD. EXIT RIGHT AND PROCEED IN A SOUTHEASTERLY DIRECTION ALONG THE EAST BENCH ROAD APPROXIMATELY 8.4 MILES TO ITS INTERSECTION WITH A COUNTY D ROAD. EXIT RIGHT AND PROCEED IN A NORTHWESTERLY DIRECTION ALONG THE COUNTY D ROAD APPROXIMATELY 0.9 MILES TO THE PROPOSED ACCESS ROAD. FOLLOW ROAD FLAGS IN A WESTERLY DIRECTION APPROXIMATELY 1,480 FEET TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 62.0 MILES IN A SOUTHERLY DIRECTION.

Enduring Resources, LLC

NW-NE 32-11S-22E Uintah County, Utah

State Lease: ML-47076

MULTI-POINT SURFACE USE & OPERATIONS PLAN

1. Existing Roads:

Directions to the East Bench 11-22-31-32 Well Pad

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah proceed in an easterly then southerly direction along U.S. highway 40 approximately 3.3 miles to the junction of State Highway 45; exit right and proceed in a southerly direction along State Highway 45 approximately 20.1 miles to its junction with the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along County B Road 3260 approximately 15.0 miles to the Mountain Fuel Bridge, Continue southwesterly along County B Road 3260 approximately 6.47 miles to its intersection with the Bitter Creek Road (Count B Road 41200. Exit Left and proceed in a southeasterly direction along County B Road 4120 approximately 4.6 miles to its intersection with the East Bench Road. Exit Right and proceed in a southeasterly direction along the East Bench Road approximately 8.4 miles to its intersection with a County D Road. Exit right and proceed in a northwesterly direction along the Count D Road approximately 0.9 miles to the proposed access road. Follow Road Flags in a westerly direction approximately 1,480 feet to the proposed location.

2. Planned Access Roads:

The proposed access road will be approximately 1,480 feet of new construction all onlease. All off-lease access is on an existing county road (East Bench Road #4130).

ALL NEW CONSTRUCTION IS ON SITLA LANDS.

The proposed access road will be utilized to transport personnel, equipment and supplies to and from the proposed well site during drilling, completion and production operations. The road will be utilized year round.

The access road will be crowned 2% to 3%, ditched and constructed with a running surface of 18 feet and a maximum disturbed width of 30 feet right-of-way. Maximum grade of road is 5% or less. Graveling or capping the roadbed will be performed as necessary to provided a well constructed, safe road. No fence crossings, culverts, turnouts, cattle guards or major cuts and fills are required. Prior to construction or upgrading, the proposed road shall be cleared of any snow and allowed to dry completely.

Surface disturbance and vehicular traffic will be limited to the proposed location and proposed access route. Any additional area needed will be approved in advance. All construction shall be in conformance with the standards outlined in the BLM and Forest

Service publication: <u>Surface Operating Standards for Oil and Gas Exploration and</u> Development. 1989.

The road surface and shoulders will be kept in a safe usable condition and will be maintained in accordance with the original construction standards. All drainage ditches will be kept clear and free flowing and will be maintained according to original construction standards. The access road surface will be kept free of trash during operations. All traffic will be confined to the approved disturbed surface. Road drainage crossings shall be designed so they will not cause siltation or accumulation of debris in the drainage crossing nor shall the drainages be blocked by the road bed. Erosion of drainage ditches by runoff water shall be prevented by diverting water off at frequent intervals by means of cutouts. Upgrading shall not be allowed during muddy conditions. Should mud holes develop, they shall be filled in and detours around them avoided. When snow is removed from the road during the winter months, the snow shall be pushed outside of the borrow ditches and the turnouts kept clear so that snowmelt will be channeled away from the road.

3. <u>Location of Existing Wells within a One-Mile radius (See "Topo" Map "C" attached):</u>

The following wells are wells located within a one (1) mile or greater radius of the proposed location.

a.	None:	Water Wells:
а.	TACITO.	Tratol Trono.

- b. None: Injection Wells:
- c. None: Producing Wells:
- d. None: Drilling Wells:
- e. None: Shut-in Wells:
- f. None: Temporarily Abandoned Wells:
- g. None: Disposal Wells:
- h. None: Abandoned Wells:
- i. None: Dry Holes:
- j. None: Observation Wells:
- k. (1): Pending (staked) Wells:
 - i. Enduring has one other well staked in this section.

4. Location of Existing and/or Proposed Facilities:

All production facilities will be located on the disturbed portion of the well pad and at a minimum of 25 feet from the toe of the back slope or the top of the fill slope.

A dike will be constructed completely around those production facilities which contain fluids (i.e. production tanks, produced water tanks and/or heater treater). These dikes will be constructed of compacted subsoil, be impervious, hold 100% of the capacity of the largest tank and be independent of the back cut.

All permanent (on site for six months or longer) above the ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective,

earth tone color to match one of the standard environmental colors, as determined by the Rocky Mountain Five State Inter-Agency Committee

All facilities will be painted within 6 months of installation. The color shall be designated by DOG&M and SITLA. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded.

Any necessary pits will be properly fenced to protect livestock and prevent wildlife entry.

Gas Gathering Pipeline for this well will be:

6.500	' Surface Pipeline	On-Lease	SITLA
,	Surface Pipeline	Off-Lease	n/a

If this well is capable of economic production, a 4" (or less) steel surface gas gathering line and related equipment shall be installed. The surface gas gathering line shall be in use year round. A total of approximately less than 6,500 feet of surface gas gathering pipeline shall be laid on the surface to minimize surface disturbance:

The proposed pipeline will begin at the well site; and be laid on the surface next to the new access road to tie-in to a steel surface pipeline that is located next to the county road.

The meter run will be housed. The gas gathering line will be buried or anchored down from the wellhead to the meter.

Upon plugging and abandonment, the gas gathering line will be removed and the disturbed area will be re-contoured and restored as near as practical to the original condition. If necessary, re-seeding operations will be performed after completion of other reclamation operations.

5. Location and Type of Water Supply:

Whenever practical, water will be obtained from Enduring Resources LLC Water Right Number 49-2215 or Water Right Number 49-2216 (*See Townships of permitted Use below). If those sources are not available, a new water source shall be submitted prior to commencing operations. (These permits have one-year terms and then must be renewed)

*Enduring Water Permits' Townships of Use:

T10S-R22E	T11S-R22E	T12S-R22E
T10S-R23E	T11S-R23E	T12S-R23E
T10S-R24E	T11S-R24E	T12S-R24E

Water will be hauled to the location over the roads marked on "Topo" Maps "A" and "B."

No water well is to be drilled on this lease.

6 Source of Construction Materials:

Surface and subsoil materials in the immediate area will be utilized for location and access road construction.

Any gravel will be obtained from a commercial source; however, gravel sized rock debris associated with location and access road construction may be used as access road surfacing material.

7. Methods of Handling Waste Materials:

Drill cuttings will be contained and buried in the reserve pit.

Drilling fluids, including salts and chemicals, will be contained in the reserve pit will be removed and disposed of at an approved waste disposal facility within 120 days after drilling is terminated.

The reserve pit will be constructed on the location and will not be located within natural drainage, where a flood hazard exits or surface runoff will destroy or damage the pit walls. The reserve pit will be constructed so that it will not leak, brake or allow discharge of liquids.

The reserve pit will be lined with $\frac{1}{4}$ felt and a minimum of 16 mm plastic with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the will be disposed of in the pit.

A chemical portable toilet will be furnished with the drilling rig. The toilet will be replaced periodically utilizing a licensed contractor to transport by truck the portable chemical toilet so that its contents can be delivered to the Vernal Wastewater Treatment Facility in accordance with state and county regulations.

Garbage, trash and other waste materials will be collected in a portable, self-contained, fully enclosed trash cage during operations. No trash well is burned on location.

All debris and other waste material not contained in the trash cage will be cleaned up and removed from the location immediately after removal of the drilling rig.

Any open pits will be fenced during the operations. The fencing will be maintained until such time as the pits are backfilled.

No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported or disposed of in association with the drilling, completion or testing of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in

•

threshold planning quantities, will be used, produced, stored, transported or disposed of in association with the drilling, completion or testing of this well.

Produced oil will be stored in an oil tank and then hauled by truck to a crude purchaser facility. Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to an approved disposal site.

8. Ancillary Facilities:

During drilling operations, approximately 20 days, the site will be a manned camp. Three or four additional trailers will be on location to serve as the crews' housing and eating facilities. These will be located on the perimeter of the pad site within the topsoil stockpiles. Refer to Sheet 4.

9. Well Site Layout: (Refer to Sheets #2, #3, and #4)

The attached Location Layout Diagrams described drill pad cross-sections, cuts and fills and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s) and surface material stockpiles(s).

Please see the attached diagram for rig orientation and access roads.

The top soil will be windrowed rather than piled. It will be reseeded and track walker at the time the location is constructed. Seeding will be with the determined during the onsite. (Refer to "Seed Mixture for Windrowed Top Soil Will included:" following herein.

The top soil removed from the pit area will be store separately and will not be reseeded until the pit is reclaimed.

All pits shall be fence to the following minimum standards:

- a. 39 inch net wire shall be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
- b. The net wire shall be no more than 2 inches above the ground. The barbed wire shall be 3 inches over the new wire. Total height of the fence shall be at least 42 inches.
- c. Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
- d. Standard steel, wood or pipe posts shall be used between the corner braces. Maximum distance between any two fence posts shall be no greater than 16 feet.
- e. All wire shall be stretched by, using a stretching device, before it is attached to corner posts.
- f. The reserve pit fencing will be on three sides during drilling operations and on the fourth side when the rig moves off location. Pits will be fenced and maintained until cleanup.
- g. Location size may change prior to drilling the well due to the current rig availability. If the proposed location is not large enough to accommodate the

drilling, the location will be re-surveyed and a Form 9 will be submitted.

10. Plans for Surface Reclamation:

Producing Location:

- a. Immediately upon well completion the location and surrounding area will be cleared of all unused tubing, equipment, materials, trash and debris not required for production.
- b. Immediately upon well completion any hydrocarbons in the pit shall be removed in accordance with 40CFR 3162.7.
- c. Before any dirt work associated with location restoration takes place, the reserve pit shall be as dry as possible. All debris in it will be removed. Other waste and spoil materials will be disposed of immediately upon completion of operations.
- d. The reserve pit **and** that portion of the location not needed for production facilities/operations will be re-contoured to the approximated natural contours. The reserve pit will be reclaimed within 90 days from the date of well completion, weather permitting.
- e. To prevent surface water(s) from standing (ponding) on the reclaimed reserve pit area, final reclamation of the reserve pit will consist of "mounding" the surface 3 feet above surrounding round surface to allow the reclaimed pit area to drain effectively.
- f. Upon completion of back filling, leveling and re-contouring, the stockpiled topsoil will be spread evenly over the reclaimed area(s).

Dry Hole/Abandoned Location:

- i. Abandoned well sites, roads and other disturbed areas will be restored as nearly as practical to their original condition. Where applicable, these conditions include the re-establishment of irrigation systems, the re-establishment of appropriate soil conditions and re-establishment of vegetation as specified.
- ii. All disturbed surfaces will be re-contoured to the approximated natural contours with reclamation of the well pad and access road to be performed as soon as practical after final abandonment. If necessary, re-seeding operations will be performed after completion of other reclamation operations.

Seed Mixture for Windrowed Top Soil Will Included:

To be provided by the DOG&M and/or SITLA.

11. Surface Ownership: Location, Access and Pipeline Route:

Wellsite: SI

SITLA

Access:

SITLA

Pipeline:

SITLA

Page

12. Other Information

On-site Inspection for Location, Access and Pipeline Route:

The on-site will be scheduled by SITLA and DOG&M.

Special Conditions of Approval:

- Tanks and Production Equipment shall be painted Dark Olive Black.
- Surface Gathering Pipeline shall be 4" or less

Archeology:

a. A Cultural Resource Inventory Report is pending and to be prepared by Montgomery Archaeological Consultants.

Paleontology:

a. A Paleontology Reconnaissance Report is pending and to be prepared by Intermountain Paleo-Consulting.

If, during operations, any archaeological or historical sites, or any objects of antiquity (subject to the Antiquities Act of June 8, 1906) are discovered, all operations which would affect such sites will be suspended and the discovery reported promptly to the surface management agency.

13, Lessee's or Operator's Representatives:

Representatives:

Fax Tel:

Alvin R. (Al) Arlian Landman – Regulatory Specialist Enduring Resources, LLC 475 17th Street, Suite 1500 Denver, Colorado 80202 Office Tel: 303-350-5114

aarlian@enduringresources.com

303-573-0461

Teme Singleton
Drilling Engineer
Enduring Resources, LLC
475 17th Street, Suite 1500
Denver, Colorado 80202
Office Tel: 303-573-5711
Fax Tel: 303-573-0461

tsingleton@enduringresources.com

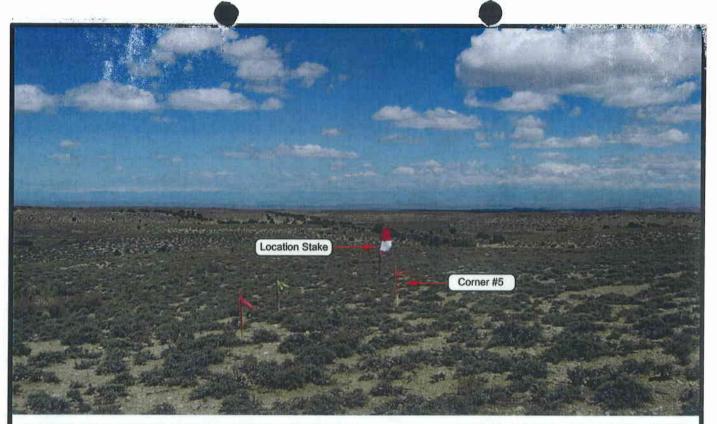


PHOTO VIEW: FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: NORTHWESTERLY

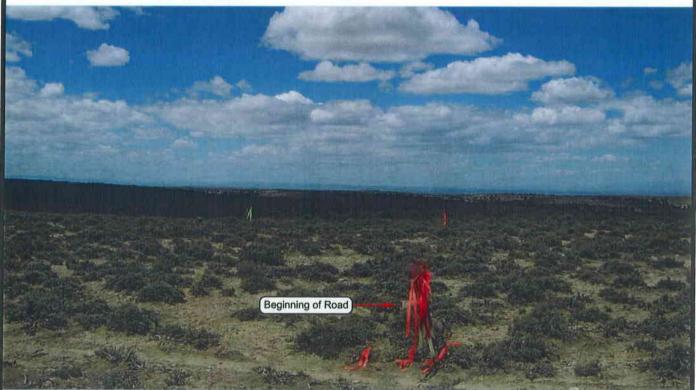


PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: WESTERLY

ENDURING RESOURCES

East Bench 11-22-31-32 SECTION 32, T11S, R22E, S.L.B.&M.

LOCATION PHOTOS

DATE TAKEN: 05-19-06 DATE DRAWN: 06-01-06

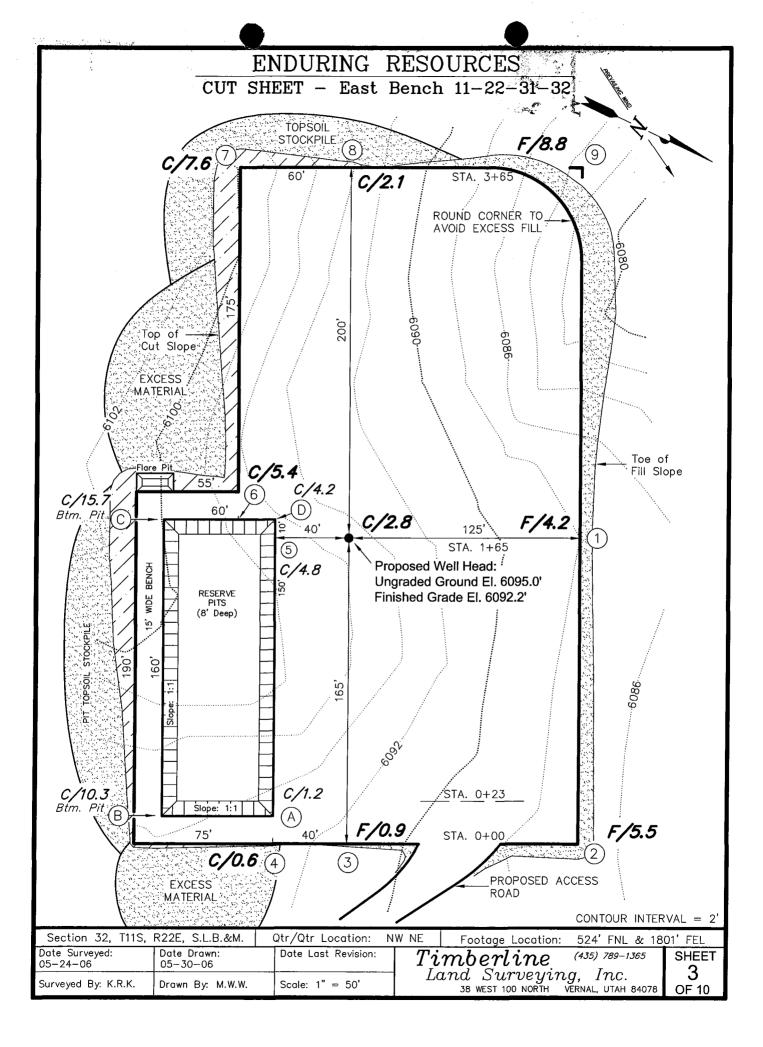
TAKEN BY: K.R.K.

DRAWN BY: BJ.Z.

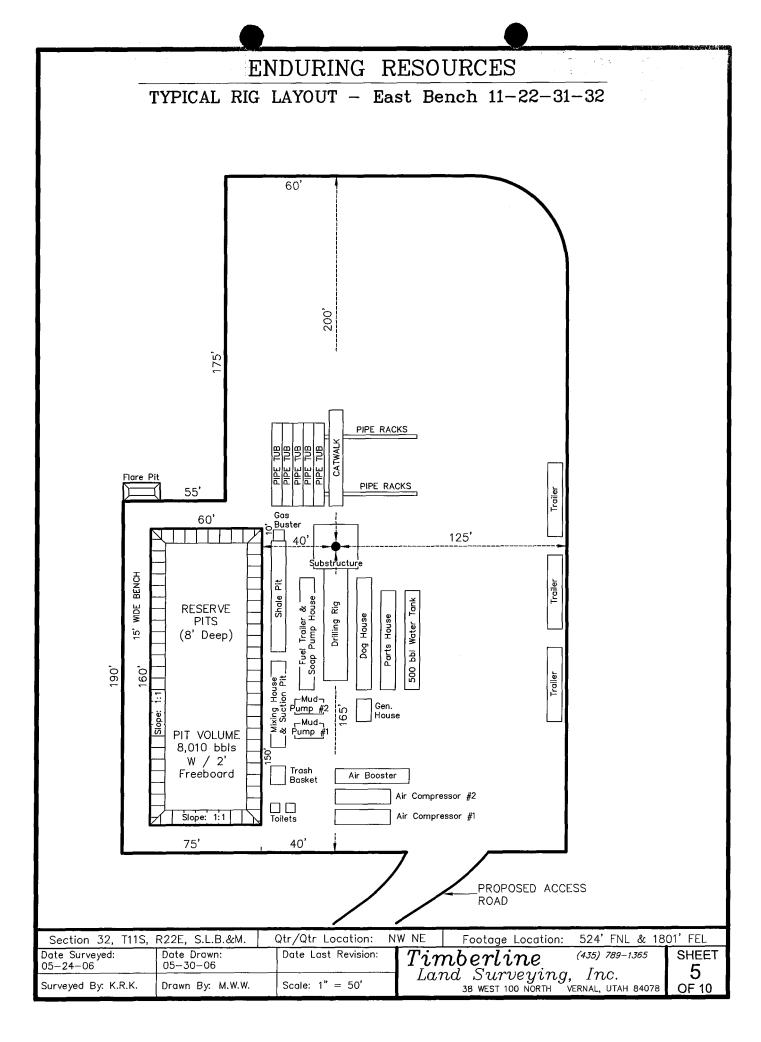
REVISED:

Timberline Land Surveying, Inc.
38 West 100 North Vernal, Utah 84078
(435) 789-1365

SHEET 1 OF 10

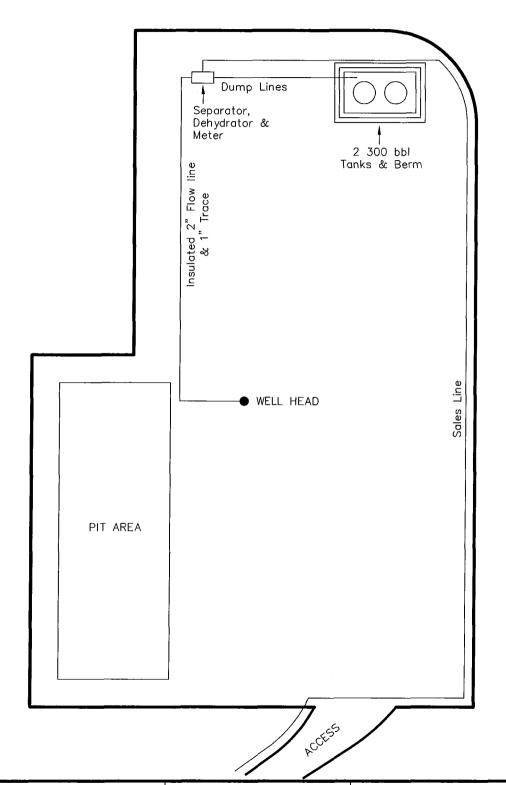


ENDURING RESOURCES CROSS SECTIONS - East Bench 11-22-31-32 20, II 1" = 50'STA. 3+65 **EXISTING** GRADE FINISHED GRADE 20, 11 WELL HOLE STA. 1+65 1" = 50'20, П 1" = 50'STA. 0+23NOTE: UNLESS OTHERWISE NOTED ALL CUT/FILL SLOPES ARE AT 1.5:1 20, 11 Pit overburden is included in pad cut. 1" = 50'STA. 0+00 ESTIMATED EARTHWORK QUANTITIES (No shrink or swell adjustments have been used) (Expressed in Cubic Yards) REFERENCE POINTS 6" TOPSOIL ITEM CUT FILL **EXCESS** 265' NORTHEASTERLY = 6091.8' 6,300 PAD Topsoil is -1,170 5,130 300' NORTHEASTERLY = 6091.3'not included PIT 2,340 in Pad Cut 2,340 175' NORTHWESTERLY = 6086.3' 1,170 **TOTALS** 7,470 6,300 1,440 225' NORTHWESTERLY = 6083.8' Excess Material after Pit Rehabilitation = 0 Cu. Section 32, T11S, R22E, S.L.B.&M. Qtr/Qtr Location: NW NE 524' FNL & 1801' FEL Footage Location: Date Surveyed: Date Drawn: Date Last Revision: (435) 789-1365 SHEET Timberline05-30-06 05-24-06 4 Land Surveying, Inc. 38 WEST 100 NORTH VERNAL, UTAH 84078 Surveyed By: K.R.K. Drawn By: M.W.W. Scale: 1" = 50'OF 10

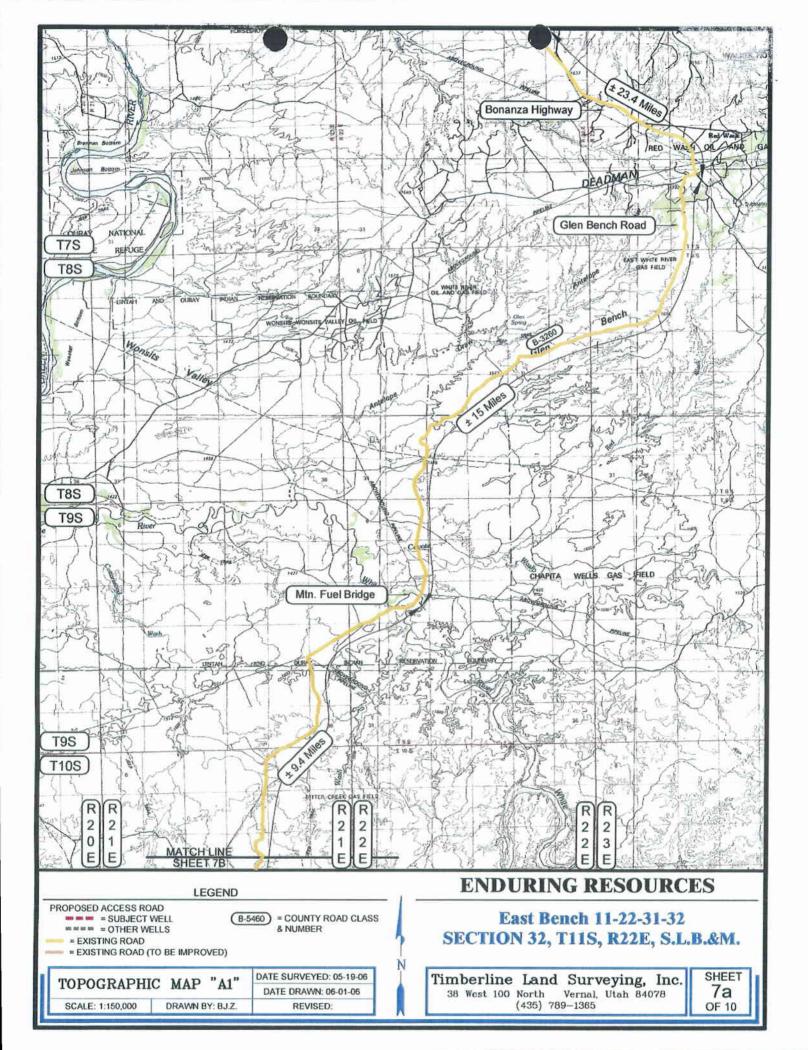


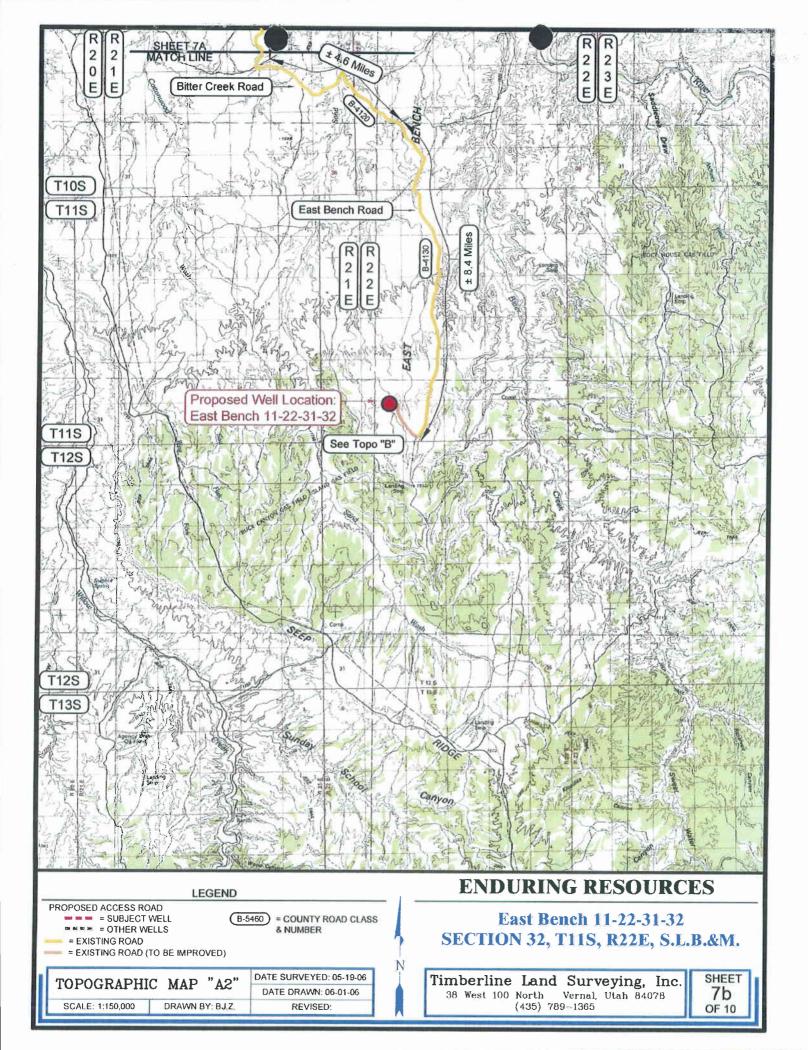
ENDURING RESOURCES

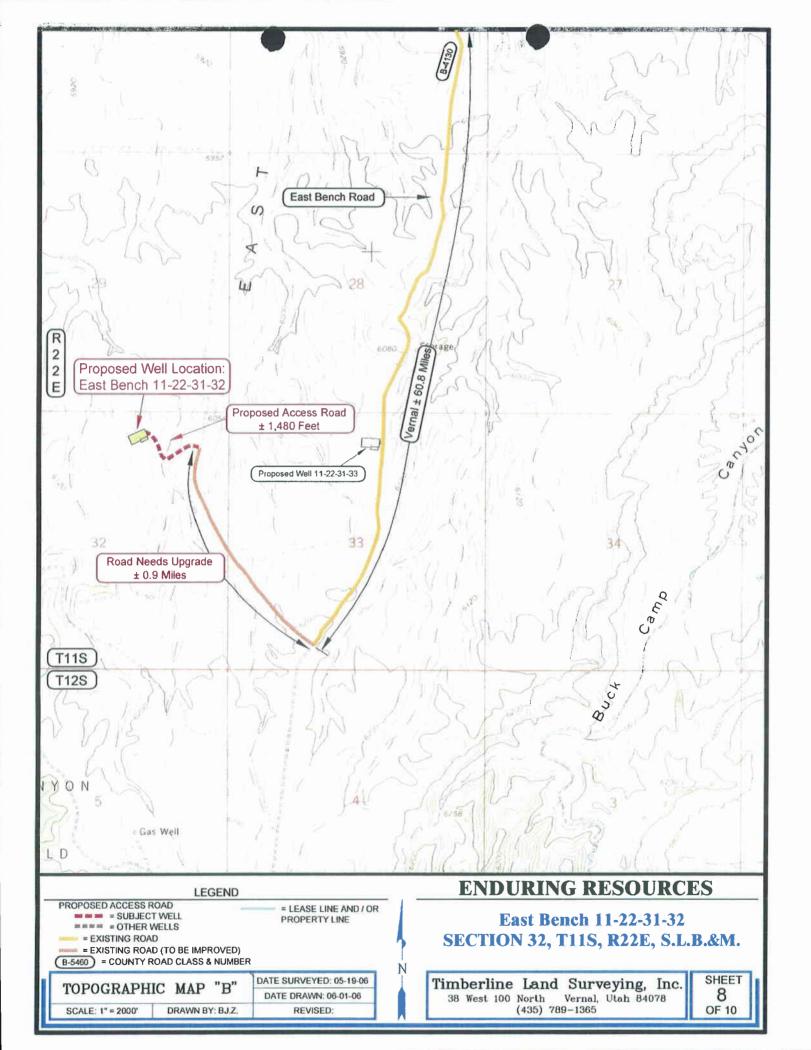
TYPICAL PRODUCTION LAYOUT - East Bench 11-22-31-32

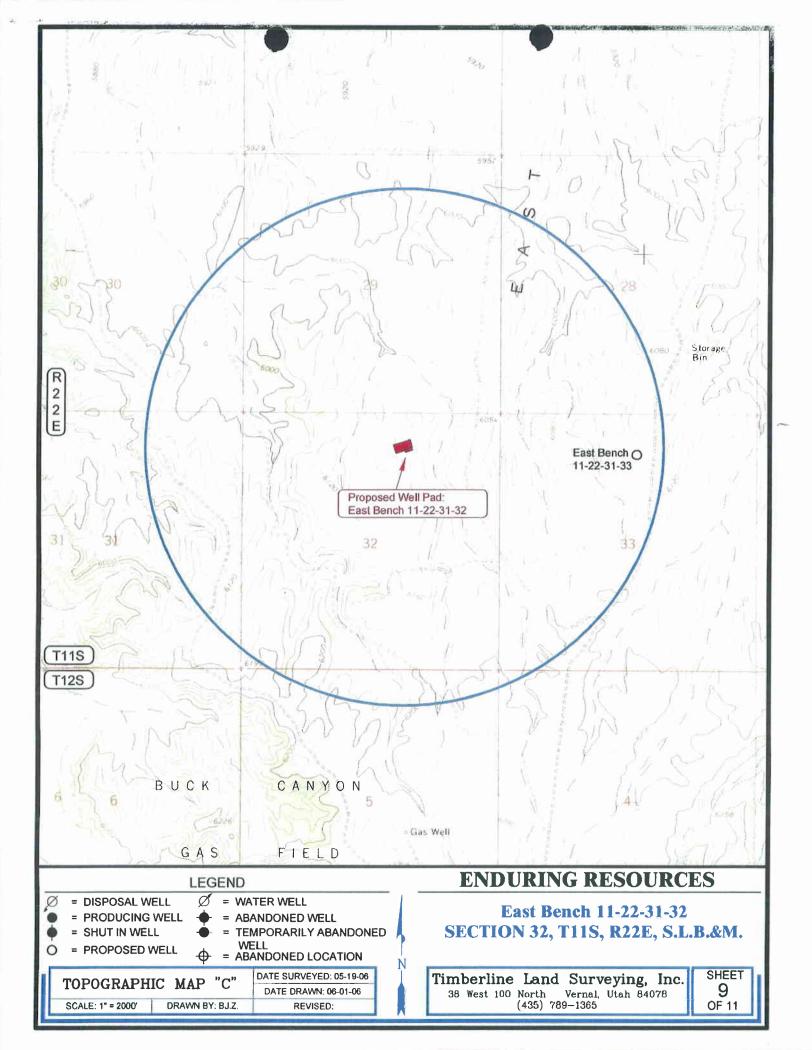


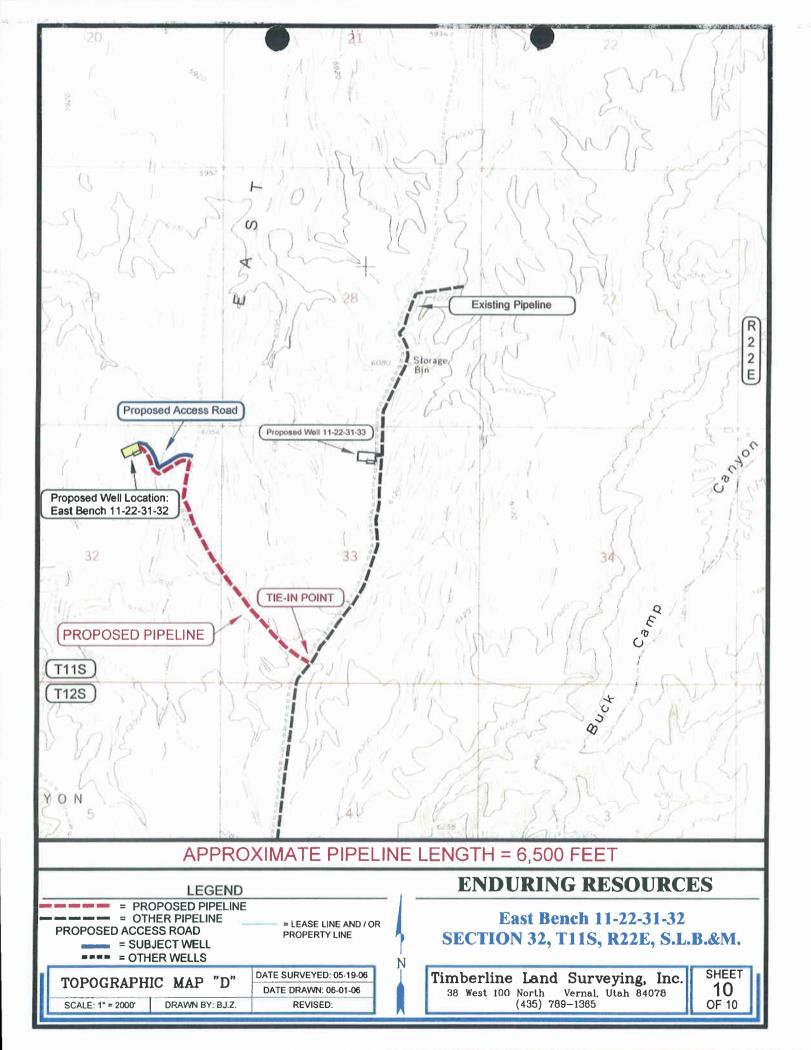
Section 32, T11S,	R22E, S.L.B.&M.	Qtr/Qtr Location:	NE	Footage Location:	524' FNL & 18	01' FEL
Date Surveyed: 05-24-06	Date Drawn: 05-30-06	Date Last Revision:		nberline	(435) 789–1365 T	SHEET
Surveyed By: K.R.K.	Drawn By: M.W.W.	Scale: 1" = 50'	Lan	nd Surveying,	, $I\mathcal{M}C$. /ERNAL, UTAH 84078	OF 10





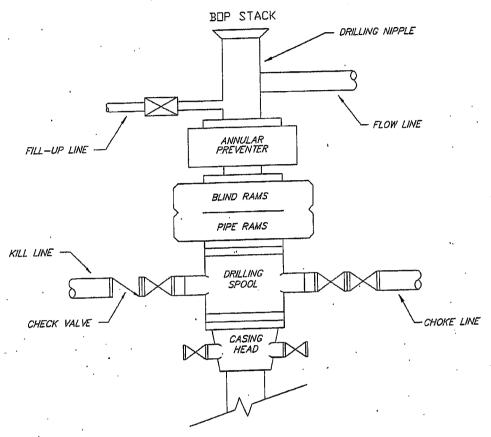




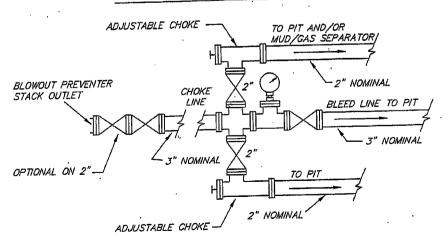


ENDURING RESOURCES, LLC

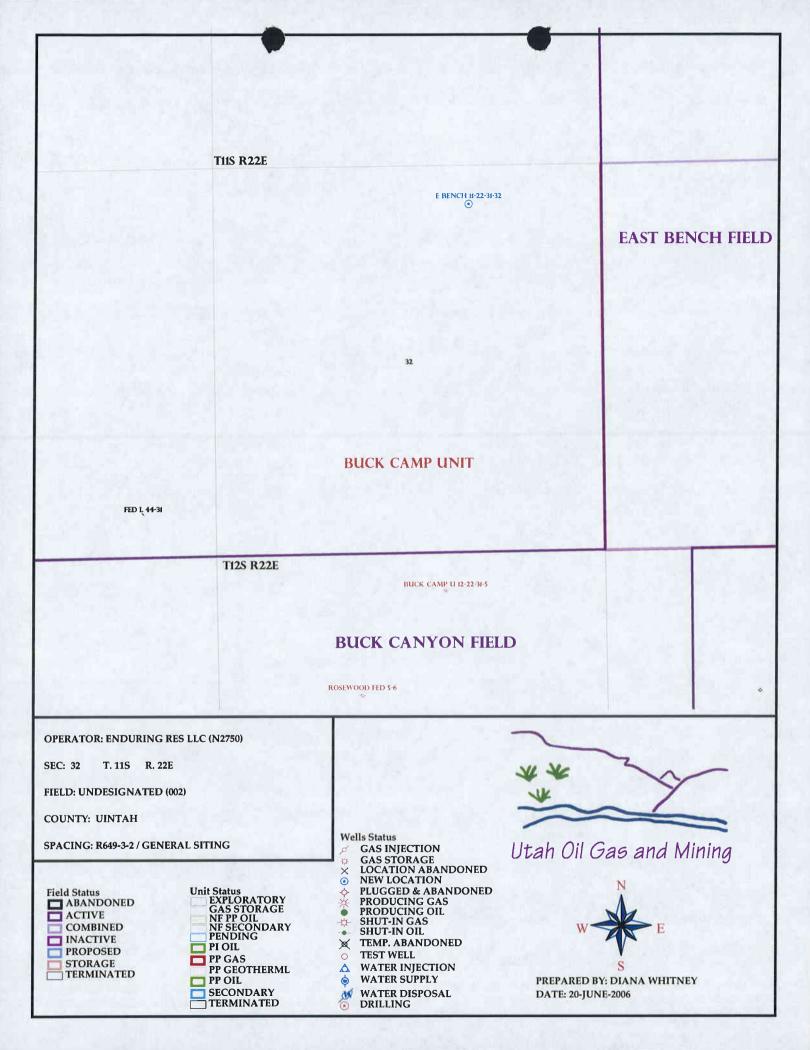
TYPICAL 3,000 p.s.i.
BLOWOUT PREVENTER SCHEMATIC



TYPICAL 3,000 p.s.i. CHOKE MANIFOLD SCHEMATIC



APD RECEIVED: 06/12/2006	API NO. ASSIGNED: 43-047-38273					
WELL NAME: E BENCH 11-22-31-32 OPERATOR: ENDURING RESOURCES, LLC (N2750) CONTACT: AL ARLIAN	PHONE NUMBER: 303-350-5114					
PROPOSED LOCATION: NWNE 32 110S 220E SURFACE: 0524 FNL 1801 FEL BOTTOM: 0524 FNL 1801 FEL COUNTY: UINTAH LATITUDE: 39.82294 LONGITUDE: -109.4751 UTM SURF EASTINGS: 630505 NORTHINGS: 44090 FIELD NAME: UNDESIGNATED (2 LEASE TYPE: 3 - State LEASE NUMBER: ML-47076 SURFACE OWNER: 3 - State						
Plat Bond: Fed[] Ind[] Sta[] Fee[] (No. RLB0008031) Potash (Y/N) Oil Shale 190-5 (B) or 190-3 or 190-13 Water Permit (No. 49-2215) RDCC Review (Y/N) (Date:) Fee Surf Agreement (Y/N) Intent to Commingle (Y/N)	LOCATION AND SITING: R649-2-3. Unit: BUCK CAMP R649-3-2. General Siting: 460 From Qtr/Qtr & 920' Between Wells R649-3-3. Exception Drilling Unit Board Cause No: Eff Date: Siting: R649-3-11. Directional Drill					
STIPULATIONS: 1- Spacing Stp 2- STATEMENT OF BABIS 3- SIFICE CSG Cont 5+cp						



DIVISION OF OIL, GAS AND MINING APPLICATION FOR PERMIT TO DRILL STATEMENT OF BASIS

OPERATOR:	ENDURING RESOURCES, LLC.					
WELL NAME & NUMBER:	East Bench 11-22-31-32					
API NUMBER:	43-047-38273					
LOCATION: 1/4,1/4 NW/NE sec: 32 TWP: 11S RNG: 22E 1801' FWL 524 FNL						
Geology/Ground Water:						
saline water is estimated at 4,100 fewithin a 10,000 foot radius of the cultural Green River Formation transwith shales and are not expected to interbedded limestones, shales and Formation and should be protected.	et of surface casing cemented to the surface. The base of the moderately eet. A search of Division of Water Rights records shows no water wells center of section 32. The surface formation at this location is the sition. The Uinta Formation is made up of discontinuous sands interbedded produce prolific aquifers. The Green River Formation is made up of sandstones. Fresh water aquifers can be found in the Green River. The proposed surface casing should adequately protect any potentially greement should be brought up above the base of the moderately saline ter waters up hole.					
Reviewer:Brad	1 Hill Date: 07-11-06					
Surface:						
minerals, and appears to be the best s	face was performed on June 30, 2006. This site is on State surface, with State site for a location in the immediate area. No significant stability problems are illing and operation of the well as proposed.					
Ben Williams with UDWR and Ed 06/22/2006. Mr. Davis attended. M	Bonner and Jim Davis with SITLA were invited to this investigation on Ir. Williams said he had a meeting that day and would not be able to attend.					
The area is within habitat known to be been meeting with the BLM on near-ladvised the pre-site was completed.	e occupied with a small flock of sage-grouse. Doug Hammond of Enduring has by APDs. He is aware of the near-by lek. Ben Williams of the UDWR will be					
ATVs were used to gain access to the	e location.					
Reviewer: Floyd Ba	Date: July 10, 2006					

Conditions of Approval/Application for Permit to Drill:

1. A synthetic liner with a minimum thickness of 16 mils with a felt subliner shall be properly installed and maintained in the reserve pit.

OPERATOR: ENDURING RESOURCES, LLC.

WELL NAME & NUMBER: East Bench 11-22-31-32

API NUMBER: 43-047-38273

LEASE: UTU-47076 **FIELD/UNIT:** Undesignated

LOCATION: 1/4,1/4 NW/NE sec: 32 TWP: 11S RNG: 22E 1801' FWL 524 FNL

LEGAL WELL SITING: 460 F SEC. LINE; 460 F 1/4,1/4 LINE; 920 F ANOTHER WELL.

GPS COORD (UTM): 630503 X 4409014 Y SURFACE OWNER: STATE OF UTAH

PARTICIPANTS

Floyd Bartlett (DOGM), Doug Hammond, (Enduring Resources), Jim Davis (SITLA), Mike Stewart (Ponderosa Construction- Dirt Contractor). Kolby Kay (Timberline Land Surveying, Inc.)

REGIONAL/LOCAL SETTING & TOPOGRAPHY

The location is approximately 32 miles southeasterly of Ouray, Utah. Access is by State of Utah highways, the Uintah County Seep Ridge road and oil field developments roads. Approximately 0.9 miles of existing road needs upgrading and 1,480 feet of new road will be constructed to the site.

The general area is on East Bench and in the head of the Sand Wash drainage. Immediately to the east is Buck Camp Canyon. Sand Wash is an ephemeral drainage, which runs northerly approximately 25 miles to the White River. The area is characterized by varied terrain consisting of large flats, shallow draws and small ridges. No seeps or springs are known to exist in the area.

The proposed East Bench 11-22-31-32 well lies in an area of undulating rolling hills separated by wide but shallow draws. A road will be constructed across one draw with an incised channel.

SURFACE USE PLAN

CURRENT SURFACE USE: Wildlife. Summer cattle grazing. Hunting.

PROPOSED SURFACE DISTURBANCE: Improving 0.9 miles of existing road and constructing 1,480 feet of new road; a well pad 365'x 225' plus reserve pit and soil stockpile storage outside the described area. The road will also serve as access to other wells planned in the area.

LOCATION OF EXISTING WELLS WITHIN A 1-MILE RADIUS: <u>None presently exist</u> but several are planned. See attached map (Topographic Map C) from GIS database.

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: All production facilities will be on location and added after drilling well. Pipeline will follow access road approximately 6500 feet to tie-in point.

SOURCE OF CONSTRUCTION MATERIAL: All construction material will be borrowed from site during construction of location.

ANCILLARY FACILITIES: None will be required.

WILL DRILLING AT THIS LOCATION GENERATE PUBLIC INTEREST OR CONCERNS? EXPLAIN: Unlikely. Oilfield activity is common in the area is the dominant use. UDWR may show concern as the area is within occupied sage-grouse habitat and a lek is north of the proposed location.

WASTE MANAGEMENT PLAN:

Drilled cuttings will be settled into reserve pit. Liquids from pit will be allowed to evaporate. Formation water will be confined to storage tanks. Commercial contractor will handle sewage facilities, storage and disposal. Trash will be contained in trash baskets and hauled to an approved landfill.

ENVIRONMENTAL PARAMETERS

AFFECTED FLOODPLAINS AND/OR WETLANDS: None

FLORA/FAUNA: Moderately vegetated with black sagebrush. Greasewood, curly mesquite grass, blue gramma, sitanion hystrix and prickly pear also exist./ Sage-grouse, pronghorn antelope, rabbits, rodents, songbirds, raptors, elk, deer, bobcat, coyote.

SOIL TYPE AND CHARACTERISTICS: Light brown, deep sandy loam with surface rock pavement..

EROSION/SEDIMENTATION/STABILITY: Small drainages are intersected by the proposed location. No diversions are warranted. The reserve pit is within a cut area on the southeast corner of the location. No stability problems are anticipated with the construction and operation of the location.

PALEONTOLOGICAL POTENTIAL: Survey completed. Report will be submitted to SITLA.

RESERVE PIT

CHARACTERISTICS: 160' by 60' and 8' deep. The reserve pit is within a cut area on the southeast corner of the location. No stability problems are anticipated with the construction and operation of the location.

LINER REQUIREMENTS (Site Ranking Form attached): A liner will be required for reserve pit. Sensitivity score of 25, rating as Level I, Highly Sensitive. Operator said they would install a 16 mil. Liner with a ½" felt sub-liner.

SURFACE RESTORATION/RECLAMATION PLAN

<u> A</u> S	PER SITLA.				 	 	 _	
SURFACE	AGREEMENT:	AS	PER	SITLA.			 	

CULTURAL RESOURCES/ARCHAEOLOGY: Site was inspected on 6-20-06 and a report will be submitted to SITLA.

OTHER OBSERVATIONS/COMMENTS

Jim Davis and Ed Bonner of SITLA and Ben Williams of UDWR were invited to the pre-site on June 22, 2006. Mr. Davis attended. Mr. Williams said he had a planning meeting that day and would not be able to attend the review.

The area is within habitat known to be occupied with a small flock of sage-grouse. Doug Hammond of Enduring has been meeting with the BLM on near-by APDs. He is aware of the near-by lek. Ben Williams of the UDWR will be advised the pre-site was completed.

ATV's were used to access the location.

ATTACHMENTS

Photos of site have been taken and placed on file.

Floyd Bartlett
DOGM REPRESENTATIVE

06/30/2006 02:00 PM DATE/TIME

FOR Reserve and	Ousice bit niner	wedarrements
Site-Specific Factors	Ranking	Site Ranking
Distance to Groundwater (feet)		
>200	0	
100 to 200 75 to 100	5 10	
25 to 75	15	
<25 or recharge area	20	
Distance to Surf. Water (feet)	_	
>1000	0 2	
300 to 1000 200 to 300	10	
100 to 200	15	_
< 100	20	0
Distance to Nearest Municipal		
Well (feet) >5280	0	
1320 to 5280	5	
500 to 1320	10	0
<500	20	0
Distance to Other Wells (feet) >1320	0	
300 to 1320	10	
<300	20	0
Native Soil Type		
Low permeability	0	
Mod. permeability High permeability	10 20	<u>20</u>
Fluid Type		
Air/mist	0	
Fresh Water	5	
TDS >5000 and <10000 TDS >10000 or Oil Base Mud Fluid	10 15	
containing significant levels of	10	
hazardous constituents	20	5
Drill Cuttings		
Normal Rock Salt or detrimental	0 10	0
	10	
Annual Precipitation (inches) <10	0	
10 to 20	5	
>20	10	
Affected Populations		
<10	0	
10 to 30 30 to 50	6 8	
>50	10	0
Presence of Nearby Utility		
Conduits Not Present	0	
Unknown	10	
Present	15	0

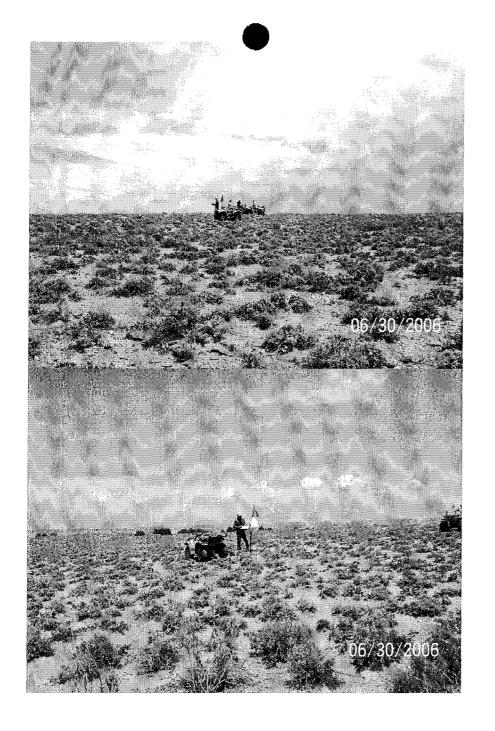
25 (Level I Sensitivity)

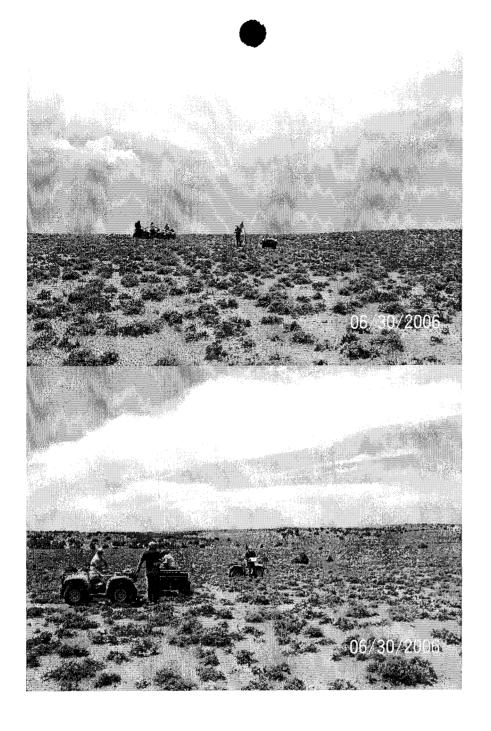
Sensitivity Level I = 20 or more; total containment is required.

Sensitivity Level II = 15-19; lining is discretionary.

Sensitivity Level III = below 15; no specific lining is required.

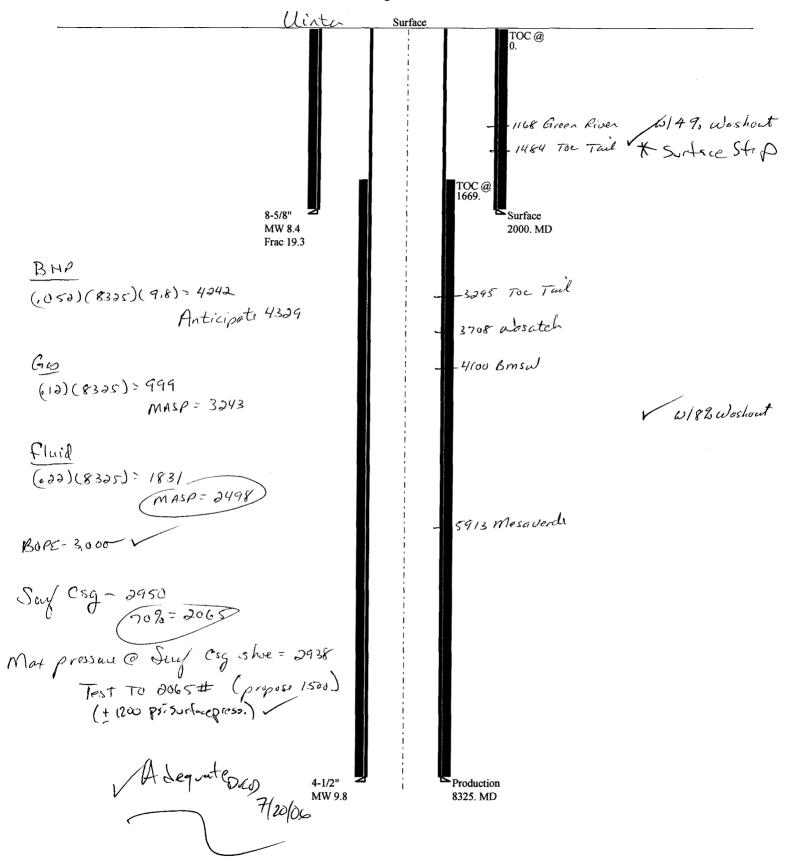
Final Score





●07-06 Enduring E Bench 11-**9**-31-32

Casing Schematic



Well name:

07-06 Enduring E Bench 11-22-31-32

Operator:

Enduring Resource, LLC

String type:

Surface

Project ID:

43-047-38273

Location:

Design parameters:

Uintah County

Minimum design factors: **Environment:**

1.00

Collapse Collapse: 8,400 ppg

Mud weight: Design is based on evacuated pipe. Design factor 1.125 H2S considered?

No 75 °F Surface temperature:

Bottom hole temperature: 103 °F 1.40 °F/100ft Temperature gradient:

Minimum section length: 500 ft

Burst:

Design factor

Cement top:

Surface

Burst

Max anticipated surface

No backup mud specified.

Calculated BHP

pressure: Internal gradient:

1,760 psi 0.120 psi/ft

2.000 psi

Tension:

1.80 (J) 8 Round STC: 1.80 (J) 8 Round LTC:

1.60 (J) **Buttress:** 1.50 (J) Premium:

Body yield: 1.50 (B)

Tension is based on buoyed weight. Neutral point: 1,748 ft

Re subsequent strings:

Injection pressure

Non-directional string.

Next setting depth: 8,325 ft Next mud weight: 9.800 ppg

Next setting BHP: 4,238 psi Fracture mud wt: 19.250 ppg Fracture depth:

2,000 ft 2,000 psi

Run Seament Nominal End True Vert Measured Drift Internal Sea Length Size Weight Grade **Finish** Depth Depth Diameter Capacity (lbs/ft) (ft) (ft) (in) (ft³) (ft) (in) 2000 8.625 24.00 ST&C 2000 2000 7.972 96.3 1 J-55 Collapse **Burst Burst Tension** Run Collapse Collapse Burst Tension Tension Design Strength Seq Load Strength Design Load Strength Load Design (psi) (psi) **Factor** (psi) (psi) **Factor** (Kips) (Kips) **Factor** 1 873 1370 1.570 2000 2950 1.48 244 5.82 J

Prepared

Clinton Dworshak

Utah Div. of Oil & Mining

Phone: 801-538-5280 FAX: 801-359-3940

Date: July 12,2006 Salt Lake City, Utah

Collapse is based on a vertical depth of 2000 ft, a mud weight of 8.4 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kernler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:

07-06 Enduring E Bench 11-22-31-32

Operator:

Enduring Resource, LLC

String type:

Production

Design parameters:

Mud weight:

Project ID:

43-047-38273

Location:

Collapse

Uintah County

Design is based on evacuated pipe.

Minimum design factors:

Environment:

H2S considered? Surface temperature: No 75 °F

Bottom hole temperature: Temperature gradient:

192 °F 1.40 °F/100ft

Minimum section length: 1,500 ft

Burst:

Collapse:

Design factor

Design factor

1.00

1.125

Cement top:

1,669 ft

Burst

Max anticipated surface

No backup mud specified.

pressure:

1,354 psi

9.800 ppg

Internal gradient: Calculated BHP

0.346 psi/ft 4,238 psi

Tension:

8 Round STC: 8 Round LTC:

1.80 (J) **Buttress:** 1.60 (J) Premium: 1.50 (J)

Body yield:

1.50 (B)

1.80 (J)

Tension is based on buoyed weight. Neutral point: 7.105 ft

Non-directional string.

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (Ibs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)	
1	8325	4.5	11.60	N-80	LT&C	8325	8325	3.875	193	
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor	
1	4238	6350	1.498	4238	``7780	1.84	82	223	2.71 J	

Prepared

Clinton Dworshak

Utah Div. of Oil & Mining

Phone: 801-538-5280

FAX: 801-359-3940

Date: July 12,2006 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 8325 ft, a mud weight of 9.8 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

August 7, 2006

Mr. Ed Bonner State of Utah School & Institutional Trust Lands Administration 675 East 500 South, Suite 500 Salt Lake City, UT 84102

Dear Mr. Bonner:

On July 20, 2006 you sent a list, via e-mail to Al Arlian (copy attached) of wells for which you needed the archeological report.

I've located and attached the same for the Hanging Rock 11-23-42-36, and Bitter Creek12-23-11-36.

The report was ordered for the East Bench 11-22-31-32 on June 8, 2006 but to date has not been received. We are following up on that one.

The reports have been ordered for all the other wells listed and we will forward them when we receive them.

Sincerely,

Évette Bissett

Regulatory Compliance Assistant

Julle Bissett

Enduring Resources 745 17th St., Suite 1500 Denver, CO 80202

303-350-5719

Enclosures

Cc: Diana Whitney, Utah DO&GM

RECEIVED AUG 1 0 2006

Evette Bissett

From:

- · * ·

Al Arlian [aarlian@enduringresources.com]

Sent: To: Monday, August 07, 2006 8:06 AM ebissett@enduringresources.com

Subject:

FW: Enduring Resources

Here's a list of Cultural Inventory (Arch Reports) that SITLA has received/missing. (I couldn't get the list to line up.)

You may check and see if we have any in p drive.

Thanks

Al

----Original Message----

From: Ed Bonner [mailto:edbonner@utah.gov] Sent: Thursday, July 20, 2006 1:15 PM

To: Diana Whitney

Cc: Al Arlian; Brad Hill; LaVonne Garrison

Subject: Enduring Resources

Diana:

I Checked with Kristine and her response is as follows:

E Bench 11-22-31-32 Hanging Rock 11-23-12-3 until 7/25 to respond		2006 6/19/2006		To		7/10/00		Have
Hanging Rock 11-23-44-3	6	6/19/2006		To	SHIPO	7/10/0	ó.	Have
until 7/25 to respond Hanging Rock 11-23-14-3		6/19/200	6	Т	SHIPC	7/10/0	06.	Have
until 7/25 to respond Hanging Rock 11-23-34-3	6	6/19/2006		To	SHIPO	7/10/0	6.	Have
until 7/25 to respond Hanging Rock 11-23-24-3		6/19/2006		To	SHIPO	7/10/0	6.	Have
until 7/25 to respond Hanging Rock 11-23-11-3		6/19/200	6	To	SHIPO	7/10/0	06.	Have
until 7/25 to respond Hanging Rock 11-23-4		6/19/2			To SHI	PO 7/1	0/06.	
Have until 7/25 to resp Hanging Rock 11-23-41-3	ond	6/19/200	6	Т	SHIPC	7/10/	06.	Have
until 7/25 to respond Hanging Rock 11-23-43-3	6	6/19/2006		To	SHIPO	7/10/0	6.	Have
until 7/25 to respond Hanging Rock 11-23-13-3	6	6/19/2006		То	SHIPO	7/10/0	6.	Have
until 7/25 to respond Sand Wash 12-22-23-32		6/19/200	6	No	arch	report		
Sand Wash 12-22-44-32	6/19/			arch	report			
Sand Wash 12-22-14-36	6/19/				report			
Sand Wash 12-22-13-36	6/19/	2006	No		report			
Bitter Creek 12-23-11-3	6	6/19/200				report		
Long Draw 12-24-13-36	6/19/	2006			report			
Archy Bench 11-24-31-32	6/21/	2006	To	SHIP	0 7/12,	/06.	Have	
until 7/27 to respond Archy Bench 11-24-22-32 until 7/27 to respond		2006	То	SHIP	o 7/12,	/06.	Have	

Give me a call if you need more information. Ed

CULTURAL RESOURCE INVENTORY OF ENDURING RESOURCES' PROPOSED BITTER CREEK 12-23-21-25, 12-23-33-25, 12-23-31-26, 12-23-41-26, AND 12-23-11-36 WELL LOCATIONS (T12S R23E SEC. 25, 26 AND 36) UINTAH COUNTY, UTAH

> Kiera Simms and Keith Montgomery

> > (5)

43.047.38273

CULTURAL RESOURCE INVENTORY OF ENDURING RESOURCES' PROPOSED BITTER CREEK 12-23-21-25, 12-23-33-25, 12-23-31-26, 12-23-41-26, AND 12-23-11-36 WELL LOCATIONS (T12S R23E SEC. 25, 26 AND 36) UINTAH COUNTY, UTAH

Ву:

Kiera Simms and Keith Montgomery

Prepared For:

Bureau of Land Management
Vernal Field Office
and
State of Utah School and Institutional
Trust Lands Administration

Prepared Under Contract With:

Enduring Resources, LLC 475 17th Street, Suite 1500 Denver, Colorado 80202

Prepared By:

Montgomery Archaeological Consultants, Inc. P.O. Box 219 Moab, Utah 84532

MOAC Report No. 06-204

July 13, 2006

United States Department of Interior (FLPMA)
Permit No. 06-UT-60122

State of Utah Antiquities Project (Survey) Permit No. U-06-MQ-0910b,s

ABSTRACT

In June of 2006, a cultural resource inventory was conducted by Montgomery Archaeological Consultants Inc. (MOAC) for Enduring Resources' five proposed well locations Bitter Creek 12-23-21-25, 12-23-33-25, 12-23-31-26, 12-23-41-26, and 12-23-11-36, with associated access and pipeline corridors. The project area occurs east of Bitter Creek Canyon. Township 12 South, Range 23 East, Sections 24, 25, 26, and 36. A total of 127 acres was inventoried with 30 acres occurring on land administered by the State of Utah School and Institutional Trust Lands Administration, and 97 acres occurring on land administered by the Bureau of Land Management (BLM), Vernal Field Office.

In summary, the inspection of Enduring Resources' five proposed Bitter Creek wells and access/pipeline corridors resulted in the documentation of two archaeological sites (42Un5380 and 42Un5381). Site 42Un5380, a historic trash scatter, and site 42Un5381, a historic brush corral complex, are recommended as not eligible for the National Historic Register of Places (NRHP) due to the fact that they are not associated with significant historic people or events (Criteria A and B), they do not possess unique artifact types or features (Criterion C), and these sites are unlikely to contribute to the history of the area (Criterion D). Therefore, a recommendation of "no historic properties affected" pursuant to Section 106, CFR 800 is proposed for this project.

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INTRODUCTION

In June of 2006, a cultural resource inventory was conducted by Montgomery Archaeological Consultants Inc. (MOAC) for Enduring Resources' proposed Bitter Creek 12-23-21-25, 12-23-33-25, 12-23-31-26, 12-23-41-26, and 12-23-11-36, well locations with associated access and pipeline corridors. The project area occurs east of Bitter Creek Canyon. Township 12 South, Range 23 East, Sections 24, 25, 26, and 36. The survey was implemented at the request of Mr. Al Arlian, Enduring Resources, LLC, Denver, Colorado. A total of 127 acres was inventoried with 30 acres occurring on land administered by the State of Utah School and Institutional Trust Lands Administration (SITLA), and 97 acres occurring on land administered by the Bureau of Land Management (BLM), Vernal Field Office.

The objective of the inventory was to locate, document, and evaluate any cultural resources within the project area in order to comply with Section 106 of 36 CFR 800, the National Historic Preservation Act of 1966 (as amended). Also, the inventory was implemented to attain compliance with a number of federal and state mandates, including the National Environmental Policy Act of 1969, the Archaeological and Historic Conservation Act of 1972, the Archaeological Resources Protection Act of 1979, the American Indian Religious Freedom Act of 1978, and Utah State Antiquities Act of 1973 (amended 1990).

The fieldwork was performed on June 13, 2006 by Todd B. Seacat (Project Archaeologist) under the direction of Keith R. Montgomery (Principal Investigator), under the auspices of U.S.D.I. (FLPMA) Permit No. 06-UT-60122 and State of Utah Antiquities Permit (Survey) No. U-06-MQ-0910b,s issued to MOAC.

A file search was conducted by Keith R. Montgomery at the Vernal Field Office of the Bureau of Land Management on June 13, 2006. This consultation indicated that few inventories have been conducted in the area. In 1998, Grand River Institute inventoried several well locations for Rosewood Resources near the area, finding a few archaeological sites situated outside of the current project area (Conner 1998). These sites include an eligible Ute campsite with a collapsed wickiup (42Un2582) and an ineligible historic livestock camp (42Un2588). In 2005, MOAC wickiup (42Un2582) and an ineligible historic livestock camp (42Un2588). In 2005, MOAC conducted an inventory of seven Archy Bench well locations for Enduring Resources resulting in the location of four historic sites; these sites do not occur within the current project area, nor are they eligible for nomination to the NRHP(Seacat 2005).

DESCRIPTION OF PROJECT AREA

Enduring Resources' proposed five proposed Bitter Creek wells with associated access/pipeline corridors are situated east of Bitter Creek Canyon, Uintah County, Utah. The legal description is Township 12 South, Range 23 East, Sections 24, 25, 26, and 36 (Figure 1).

Table 1: Enduring Resources' Five Proposed Bitter Creek Wells with Access/Pipeline Corridors.

Well Location	Legal Locations	Pipeline	Cultural Resources	
Bitter Creek 12-23-21-25	NE/NW T12S R23E Section 25	Pipeline: 1800 ft Access: 676 ft	None	
Bitter Creek 12-23-33-25	NW/SE T12S R23E Section 25	Pipeline:3585 ft Access: 158 ft	None	
Bitter Creek 12-23-31-26	NW/NE T12S R23E Section 26	Pipeline: 5079 ft Access: 1045 ft	42Un5380 42Un5381	
Bitter Creek 12-23-41-26	NE/NE T12S R23E Section 26	Pipeline:1394 ft Access: 275 ft	42Un5380 42Un5381	
Bitter Creek 12-23-11-36	NW/NW T12S R23E Section 36	Pipeline: 7228 ft Access: 803 ft	None	

Environmental Setting

The study area lies within the Uinta Basin physiographic unit, a distinctly bowl-shaped geologic structure (Stokes 1986:231). The Uinta Basin ecosystem is within the Green River drainage, considered to be the northernmost extension of the Colorado Plateau. The geology is comprised of Tertiary age deposits; which include Paleocene age deposits, and Eccene age fluvial and lacustrine sedimentary rocks. The Uinta Formation, which is predominate in the project area, occurs as eroded outcrops (formed by fluvial deposited, stream laid interbedded sandstone and mudstone), and is known for its prolific paleontological localities.

Specifically, the project area is situated along Bitter Creek, east of Bitter Creek Canyon. Surface geology generally consists of hard pan residual soil armored with shale and sandstone pebbles. The elevation ranges between 6200 ft and 6500 ft asl. The project occurs within the Upper Sonoran Desert Shrub Association which includes; sagebrush, shadscale, greasewood, mat saltbush, snakeweed, rabbitbrush, prickly pear cactus, Indian ricegrass, and other grasses. Modern disturbances include roads and oil/gas development.

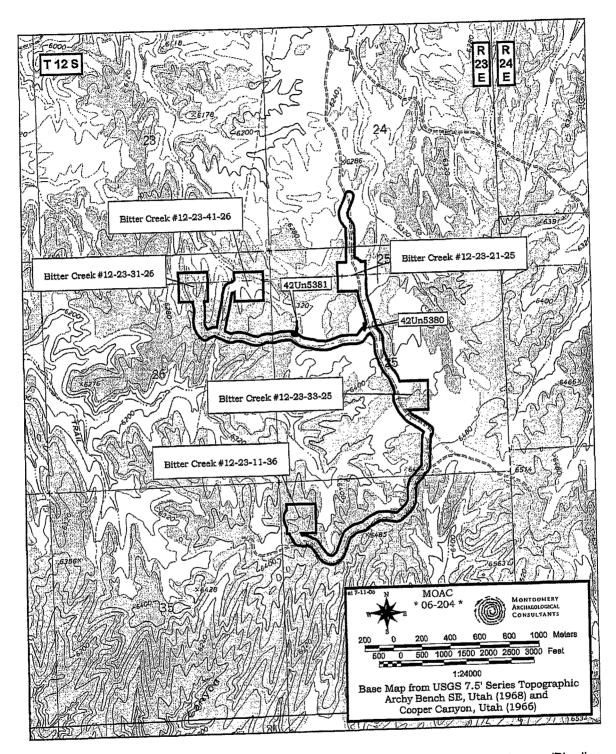


Figure 1: Enduring Resources' Five Proposed Bitter Creek Well Locations with Access/Pipeline Corridors, and sites 42Un5380 and 42Un5381.

Cultural Overview

The earliest recorded visit by Europeans to Utah was the Dominguez-Escalante expedition, of 1776. From the early 1820s to 1845, the Uinta Basin became an important part of the expanding western fur trade. Homesteading began in 1878 with Thomas Smart, one of the first white settlers to settle east of Ouray. In 1879, about forty cowboys and several large herds of cattle wintered on the White River. The winter of 1879-1880 saw the establishment of a settlement near the White River by several pioneers and their families including Ephraim Ellsworth, the Remingtons, and the Campbells. The person most responsible for organizing a permanent homesteading movement in Ouray Valley was William H. Smart, the brother of Thomas Smart, who became president of the Wasatch LDS Stake in 1901 (Burton 1998). When the Ute reservation was opened to white homesteaders in 1905, Smart organized several exploration trips into the area that later attracted many LDS families.

Initially, livestock was the main industry of white homesteaders in Uintah County. Two factors - free grass and the availability of water - influenced men to move their cattle into the county. Most of the land in the area was part of the public domain and no territory or state could tax it. Cattle were eventually brought up east as far as the Green River and then to the surrounding mountains. Large cattle herds had been coming to Brown's Park from Texas and other eastern areas since the early 1850s. The K Ranch, a large cattle operation owned by P.R. Keiser, brought many cowboys to the area. The ranch was located on the Utah-Colorado line with property in both states. Charley Hill, who came to Ashley Valley as a trapper for the Hudson Bay Company, started a cattle company on Hill Creek and Willow Creek in the Book Cliffs (Burton 1996:109). They later moved out when the government set this section aside for the Ouray Indian Agency. Other prominent men in the cattle industry included A.C. Hatch, Dan Mosby, and James McKee. Cattle rustling became an increasingly large problem as cattle herds grew, and conflict resulted between the small and large cattle companies. In 1912, the Uintah Cattle and Horse Growers Association was organized to protect the livestock industry from thieves and to issue an authorized brand book (Ibid: 110).

During the 1940s drivelines and brush corrals were constructed in Uintah County to capture wild horses, and were used through the 1960s and 1970s. The corrals and lines consist of local juniper and pinyon branches tied together with wire and stabilized with trees or drilling rig sucker rods. Portions of these corrals and lines have since been scavenged for their wood, and have collapsed. The corrals and drivelines were most likely constructed to catch wild horses to assist with the World War II effort (Truesdale 1998).

The sheep industry later became part of Uintah County's economic backbone, and contributed to the decline of the cattle industry. Sheep were first introduced to the valley during the winter of 1879 when Robert Bodily brought in sixty head (Burton 1996:111). Sheep were able to survive the hard winters much better than cattle. By the mid-1890s, more than 50,000 head of sheep were in the region; and the production of wool became very important. In 1897, C.S. Carter began building shearing corrals. In 1899, 500,000 pounds of wool were shipped from the county and sold for twelve and one-half cents per pound (Ibid:111). In 1906, the Uintah Railway Company built shearing pens on the Green River to encourage the shipping of wool by train; and in 1912, pens were built at Bonanza and Dragon. Beginning in the 1940s Mexican sheep-shearing crews and Greek sheepmen from the Price and Helper areas came into the area. The Taylor Grazing Act

was passed in 1934, allotting specific areas or "districts" to stockmen for livestock grazing that required permits. This act was a forerunner of the Bureau of Land Management, which was established in 1946 and eventually assumed responsibility for the administration of grazing laws on public land (Burton 1996:115).

Uintah County is also known for its natural resources. Coal, copper, iron, asphalt, shale, and especially gilsonite, were important to the mining industry. When gilsonite was discovered in the Uinta Basin in the 1880s, Congress was persuaded to apportion 7,040 acres from the Ute reservation so the mineral could be mined. This area became known as "The Strip" and later developed into the townsite of Moffat (later renamed Gusher). Gilsonite is a light-weight lustrous black hydrocarbon mineral that can easily be crushed into a black-brown powder. It can be found in commercial quantities only in the Uinta Basin. The earliest use of the mineral was in buggy paints and beer-vat linings. Today it is used in over a hundred products ranging from printing inks to explosives and automobile body sealer and radiator paint (Burton 1998:343). Mining camps also sprang up near the Colorado line in Bonanza, Dragon, and Watson starting in about 1903. Many immigrants, including Greeks and Chinese, worked in the mines. Bonanza became one of the largest and most modern functioning mining camps in the area beginning in 1921, reaching its peak in 1937. It was chosen as the Barber gilsonite company headquarters, because it was near the largest deposits of gilsonite in the area. Miners from Dragon, Rainbow, and other neighboring communities were relocated to Bonanza.

SURVEY METHODOLOGY

An intensive pedestrian survey was performed for this project which is considered 100% coverage. At each of the proposed well locations, a ten acre area centered on the well pad center stake was surveyed by the archaeologist walking parallel transects spaced no more than 10 m (30 ft) apart. The pipeline/access corridors were 61 m (200 ft) wide, surveyed by walking parallel transects along the staked centerline, spaced no more than 10 m (30 ft) apart. Ground visibility was considered to be good. A total of 127 acres was inventoried with 30 acres occurring on land administered by the State of Utah School and Institutional Trust Lands Administration (SITLA), and 97 acres occurring on land administered by the Bureau of Land Management (BLM), Vernal Field Office.

INVENTORY RESULTS

The inventory of Enduring Resources' five proposed Bitter Creek well locations with associated access/pipeline corridors resulted in the documentation of two new archaeological sites (42Un5380 and 42Un5381).

Smithsonian Site No.:

42Un5380 06-204-01

Temporary Site No.: Legal Description:

SE/NW Section 25, Township 12 South, Range 23 East

NRHP Eligibility:

Not Eligible

Description:

This site is a historic trash scatter located on a tableland east of Bitter Creek Canyon. Artifacts found on the site consist of one hole-in-cap can (1840-1920), four hole-in-top cans (1915-1930), eight sanitary cans, including a coffee can lid, one tobacco pocket tin lid, one lard can lid, and two unidentified cans. There is a total of 17 cans in all. The site dates from 1915 to 1930, based on cross dating of the diagnostic artifacts.

Smithsonian Site No.:

42Un5381

Temporary Site No.:

06-204-02

Legal Description:

SW/NW Section 25, Township 12 South, Range 23 East

NRHP Evaluation:

Not Eligible

Description:

This site is a brush corral consisting of three brush pens and a brush fence located on a tableland east of Bitter Creek Canyon. The corral is likely associated with other brush corrals that were constructed in the area during the 1940s to capture wild horses. The vegetation consists of pinyon, juniper, and various forbs and grasses. The soil is a yellow tan, fine, compact silt with intermixed gravel. The artifacts found at the site include wire, tin cans, and a glass bottle. The site dates from 1945 to 1971, based on a diagnostic glass bottle found at the site.

NATIONAL OF HISTORIC PLACES EVALUATION

The National Register Criteria for Evaluation of Significance and procedures for nominating cultural resources to the National Register of Historic Places (NRHP) are outlined in 36 CFR 60.4 as follows:

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of State and local importance that possess integrity of location, design, setting, material, workmanship, feeling, and association, and that they:

- a)...are associated with events that have made a significant contribution to the broad patterns of our history; or
- b)...are associated with the lives of persons significant to our past; or
- c)...embody the distinctive characteristics of a type, period, or method of construction; or that represents the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d)...have yielded or may be likely to yield information important in prehistory or history.

The cultural resource inventory resulted in the documentation of two new archaeological sites. Site 42Un5380 (a historic trash scatter) and site 42Un5381 (a historic brush corral complex) are recommended as not eligible because they are not associated with significant historic people or events (Criteria A and B), they do not possess unique artifact types or features (Criterion C) and these sites are unlikely to contribute to the history of the area (Criterion D).

MANAGEMENT RECOMMENDATIONS

The cultural resource inventory of Enduring Resources' five proposed well locations with associated pipeline/access corridors resulted in the documentation of two new archaeological sites (42Un5380 and 42Un5381), which are not eligible to the NRHP. Therefore, a recommendation of "no historic properties affected" is proposed for the undertaking pursuant to Section 106, CFR 800.

REFERENCES CITED

Burton, D.K.

1996

A History of Uintah County. Scratching the Surface. Utah Centennial County History Series. Utah State Historic Society and the Uintah County Commission.

1998

Settlements of Uintah County, Digging Deeper. Uintah County Library History Series. Uintah County Library, Vernal, Utah.

Conner, C.E.

1998

Class III Cultural Resource Inventory of Seven Rosewood Well Locations, Uintah County, Utah. Grand River Institute, Grand Junction, Colorado.

Seacat, T.

2005

Cultural Resource Inventory for Enduring Resources' Seven Proposed Well Locations, Access Routes and Pipelines (Archy Bench 12-23-11-16, 12-23-12-16, 12-23-13-16, 12-23-21-16, 12-23-22-16, 12-23-31-16 and 12-23-42-16) near Bitter Creek in Sec. 16, T12S, R23E, Uintah County, Utah. Montgomery Archaeological Consultants, Moab, Utah. Project No. U-05-MQ-00748s.

Stokes, W.L.

1986

Geology of Utah. Utah Museum of Natural History and Utah Geological and Mineral Survey, Salt Lake City.

Truesdale, James A.

1998

Del-Rio Resources Inc., A Cultural Resource Inventory for Sections 28, 29, 30 and 32 of T14S R20E, Uintah-Ouray Ute Reservation, Uintah County, Utah. Report prepared for Del-Rio Resources Inc. by An Independent Archaeologist. Manuscript on file at An Independent Archaeologist office Laramie, Wyoming.

APPENDIX A:

INTERMOUNTAIN ANTIQUITY COMPUTER SYSTEM (IMACS) SITE INVENTORY FORMS (42Un5380 and 42Un5381)

On File At:

Bureau of Land Management Vernal Field Office and Division of State History Salt Lake City, UT

pbrandt

From: Al Arlian [aarlian@enduringresources.com]

Sent: Monday, August 07, 2006 1:06 PM

To: 'Frank Hutto'; 'Jack Watson'

Cc: acampbell@enduringresources.com; 'pbrandt'; pdorr@enduringresources.com; 'Tim Singleton';

dhammond@enduringresources.com

Subject: Approved APD's "SITLA"

The following approved "SITLA" APD'S came in today.

Rock House 11-23-11-2

Rock House 10-23-23-32

Rock House 10-23-24-32

Rock House 10-23-11-32

Hanging Rock 11-23-44-36

Hanging Rock 11-23-43-36

Hanging Rock 11-23-34-36

Hanging Rock 11-23-13-36

Hanging Rock 11-23-12-36

Hanging Rock 11-23-42-36

Hanging Rock 11-23-41-36

Hanging Rock 11-23-24-36

Hanging Rock 11-23-14-36

pbrandt

From: Jack Watson [jwatson@enduringresources.com]

Sent: Monday, August 07, 2006 9:45 AM

To: 'Frank Hutto'; 'pbrandt'; 'Bob German'; 'Tim Singleton'

Cc: ptatar@enduringresources.com

Subject: Next Well for BES 33/Notes

Gentlemen:

In my estimation, we still have the potential issue of Basic 33 "giving up the ghost" if we move them south of the river (next well slated is the Buck Camp 12-22-13-2). I estimate, barring problems, that BES will be ready to move around August 23. We have the Bonanza 9-24-21-8 location built (Bob is reviewing net pay at this location) as well as the Southman Canyon 9-24-43-30 (immediately south of their present location). Doug is in the process of building the Southman Canyon 9-24-22-30 (which Bob thinks is a better location than the SC 9-24-43-30)---this location will be built by the time Basic is ready to move. Do we want to keep Basic north of the River at least for one more well---perhaps moving them to the Bonanza location or the SC 9-24-22-30?

We finally received the permits for wells in Section 32. If we can get through the wrestling match with THX this week (relative to shutting in their wells to drill new directional wells), Patterson will commence this program in late August (following the Buck Camp Unit well (Buck Camp Unit 11-22-22-28). Based on Joanne's memo to Barth, THX will likely be putting the strong arm on us to compensate them for lost production (at least on the THX 100% wells).

Caza should commence drilling on the Southman Canyon 9-23-23-36 later today. Brian recently voiced concern over drilling multiple locations in Section 36 prior to obtaining production data on the new wells. Do we want to keep Caza 79 in Section 36 (9S-23E) or consider moving them elsewhere---giving us the opportunity to evaluate initial production?

... food for thought from the trenches.

JW

pbrandt

From: Mike Roark [mroark@enduringresources.com]

Sent: Monday, August 07, 2006 8:11 AM

To: 'pbrandt'

Subject: FW: Rev 1 Southman Canyon

From: David Smith [mailto:David.Smith@questar.com]

Sent: Friday, August 04, 2006 4:18 PM **To:** mroark@enduringresources.com **Subject:** FW: Rev 1 Southman Canyon

Mike, I should have a quote from another vendor on Monday.

I) Southman Canyon

Equipment: Waukesha F18GL / Ariel JGJ2

Delivery - 18-20 weeks based on cylinders and cooler. Performance: 4.7 MMscfd at PS=100 & PD = 350 psig

12-month rate = \$11,250.00/month

Purchase price at end of term = \$473,000.00

24-month rate = \$10,420.00/month Purchase price at end of term = \$450,000.00

36-month rate = \$9,585.00/month Purchase price at end of term = \$431,000.00 August 23, 2006

43-047-38273

Mr. Ed Bonner State of Utah School & Institutional Trust Lands Administration 675 East 500 South, Suite 500 Salt Lake City, UT 84102

Dear Mr. Bonner:

On July 20, 2006 you sent a list, via e-mail to Al Arlian (copy attached) of wells for which you needed the archeological report.

I've located and attached the same for the East Bench 11-22-31-32

Sincerely,

Evette Bissett

Regulatory Compliance Assistant

Eulle Brasett

Enduring Resources

745 17th St., Suite 1500

Denver, CO 80202

303-350-5719

Enclosures

Cc: Diana Whitney, Utah DO&GM

RECEIVED AUG 2 8 2006



From:

Ed Bonner

To:

Whitney, Diana

Date:

9/12/2006 2:43:10 PM

Subject:

Well Clearance

The following wells have been given cultural resource clearance by the Trust Lands Cultural Resources Group:

Cochrane Resources, Inc.

Divide 32-32 (API 43 019 31487)

Enduring Resources, LLC

Southam Canyon 10-25-11-32 (API 43 047 38395)

Southam Canyon 10-25-14-32 (API 43 047 38396)

Southam Canyon 10-25-34-32 (API 43 047 38401)

Rock House 10-23-34-32 (API 43 047 38470)

East Bench 11-22-31-32 (API 43 047 38273)

Sand Wash 12-22-23-32 (API 43 047 38285)

Sand Wash 12-22-44-32 (API 43 047 38286)

Buck Camp 12-22-23-2 (API 43 047 38483)

Buck Camp 12-22-14-2 (API 43 047 38482)

The Houston Exploration Company

North Horseshoe 5-16-6-22 (API 43 047 38406)

Newfield Production Company

Horseshoe Bend State 4-28-6-21 (API 43 047 38366)

XTO Energy, Inc.

State of Utah 17-8-19-11D (API 43 015 30695)

State of Utah 17-8-20-13 (API 43 015 30698)

If you have any questions regarding this matter please give me a call.

CC:

Davis, Jim; Garrison, LaVonne; Hill, Brad; Hunt, Gil



Department of Natural Resources

MICHAEL R. STYLER Executive Director

Division of Oil, Gas & Mining

JOHN R. BAZA
Division Director

JON M. HUNTSMAN, JR. Governor

GARY R. HERBERT Lieutenant Governor

September 12, 2006

Enduring Resources, LLC 475 17th St., Ste. 1500 Denver, CO 80202

Re:

East Bench 11-22-31-32 Well, 524' FNL, 1801' FEL, NW NE, Sec. 32,

T. 11 South, R. 22 East, Uintah County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann.§ 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-38273.

Sincerely,

Gil Hunt

Associate Director

pab Enclosures

cc:

Uintah County Assessor

SITLA

Bureau of Land Management, Vernal District Office

Operator:	<u>Endurin</u>	Enduring Resources, LLC				
Well Name & Number East Bench 11-22-31-32						
API Number:	43-047-38273					
Lease:	ML-470					
Location: NW NF	Sec. 32	T. 11 South	R. 22 East			

Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. Notification Requirements

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- 24 hours prior to cementing or testing casing
- 24 hours prior to testing blowout prevention equipment
- 24 hours prior to spudding the well
- within 24 hours of any emergency changes made to the approved drilling program
- prior to commencing operations to plug and abandon the well

The following are Division of Oil, Gas and Mining contacts and their work telephone numbers (please leave a voice mail message if the person is not available to take the call):

- Dan Jarvis at (801) 538-5338
- Carol Daniels at (801) 538-5284 (spud)

3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

- 4. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.
- 5. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)

Page 2 43-047-38273 September 12, 2006

- 6. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.
- 7. Operator shall comply with applicable recommendations resulting from Resource Development Coordinating Committee review. Statements attached.
- 8. Surface casing shall be cemented to the surface.

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

CONFIDENTIAL 5. LEASE DESIGNATION AND SERIAL NUMBER:

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. 1. TYPE OF WELL OIL WELL GAS WELL OTHER 2. NAME OF OPERATOR: Enduring Resources, LLC 3. ADDRESS OF OPERATOR: 475 17th Street, Suite 1500 CITY Denver STATE CO ZIP 80202 PHONE NUMBER: (303) 350-5719	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: n/a 7. UNIT OF CA AGREEMENT NAME: n/a 8. WELL NAME and NUMBER: East Bench 11-22-31-32 9. API NUMBER: 4304738273 10. FIELD AND POOL, OR WILDCAT: Undesignated
475 17th Street, Suite 1500 CITY Denver STATE CO ZIP 80202 (303) 350-5719 4. LOCATION OF WELL FOOTAGES AT SURFACE: 524' FNL - 1801' FEL	соинту: Uintah
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNE 32 11S 22E S	STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPO	RT, OR OTHER DATA
TYPE OF SUBMISSION TYPE OF ACTION	
NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: Approximate date work will start: CASING REPAIR CHANGE TO PREVIOUS PLANS CHANGE TUBING PLUG AND ABANDON CHANGE WELL NAME PLUG BACK CHANGE WELL STATUS PRODUCTION (START/RESUME) COMMINGLE PRODUCING FORMATIONS RECLAMATION OF WELL SITE CONVERT WELL TYPE DEEPEN FRACTURE TREAT NEW CONSTRUCTION OPERATOR CHANGE PLUG AND ABANDON PRODUCTION (START/RESUME) RECLAMATION OF WELL SITE	REPERFORATE CURRENT FORMATION SIDETRACK TO REPAIR WELL TEMPORARILY ABANDON TUBING REPAIR VENT OR FLARE WATER DISPOSAL WATER SHUT-OFF OTHER: Request for APD Extension
Enduring Resources, LLC respectfully request an extension to the expiration date of thi FROM: 9/12/2007 TO: 9/12/2008 Approved by the Utah Division of Oil, Gas and Mining Date: 01-13-03 By:	s Application for Permit to Drill
	ulatory Specialist
(This space for State use only)	RECEIVED

SEP 1 4 2007

Application for Permit to Drill Request for Permit Extension Validation

(this form should accompany the Sundry Notice requesting permit extension)

API:	4304738273			
	East Bench 11-22-31		2 T110 D22F	
Location:	524' FNL - 1801' FE rmit Issued to:			
Date Origina	l Permit Issued:	9/12/2006	ices, EEC	
Date Origina	i i Cilille Issuedi.			
above, hereby	y verifies that the	information as	o drill on the propert submitted in the produced and does not require in	eviously
	checklist of some	items related	to the application,	which should be
verified.				
	orivate land, has t een updated? Yes		changed, if so, has	the surface
Have any wel	ls been drilled in t r siting requireme	the vicinity of t nts for this loc	he proposed well w ation? Yes⊟No⊠	hich would affect
Has there been permitting or	en any unit or othe operation of this p	er agreements roposed well?	put in place that co Yes⊡No☑	ould affect the
Have there be of-way, which	een any changes in could affect the p	to the access proposed locat	route including own tion? Yes□ No ☑	ership, or right-
Has the appro	oved source of wa	iter for drilling	changed? Yes□No	οØ
Have there be which will req evaluation? Y	uire a change in p	changes to the plans from wha	e surface location or at was discussed at	access route the onsite
Is bonding sti	ll in place, which o	covers this pro	posed well? Yes 🛭	No□
	My-		9/11/2007	
Signature			Dat	te
Title: Landma	n - Regulatory Specia	list		
Representing	: Enduring Resourc	es, LLC		
				RECEIVED

SEP 1 4 2007

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES

(5/2000)

DIVISION OF OIL, GAS AND MINING ONFIDENTIAL	5. LEASE DESIGNATION AND SERIAL NUMBER: ML-47076
SUNDRY NOTICES AND REPORTS ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL OIL WELL GAS WELL OTHER	8. WELL NAME and NUMBER: East Bench 11-22-31-32
2. NAME OF OPERATOR:	9. API NUMBER:
Enduring Resources, LLC 3. ADDRESS OF OPERATOR: PHONE NUMBER:	4304738273 10. FIELD AND POOL, OR WILDCAT:
475 17th Street, Suite 1500 CITY Denver STATE CO ZIP 80202 (303) 350-5114	Undesignated
4. LOCATION OF WELL FOOTAGES AT SURFACE: 524' FNL - 1801' FEL	соинту: Uintah
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNE 32 11S 22E S	STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REF	PORT, OR OTHER DATA
TYPE OF SUBMISSION TYPE OF ACTION	
NOTICE OF INTENT	REPERFORATE CURRENT FORMATION
(Submit in Duplicate) ALTER CASING FRACTURE TREAT	SIDETRACK TO REPAIR WELL
Approximate date work will start: CASING REPAIR NEW CONSTRUCTION	TEMPORARILY ABANDON
CHANGE TO PREVIOUS PLANS OPERATOR CHANGE	TUBING REPAIR
CHANGE TUBING PLUG AND ABANDON	VENT OR FLARE
SUBSEQUENT REPORT CHANGE WELL NAME PLUG BACK (Submit Original Form Only)	WATER DISPOSAL
Date of work completion: CHANGE WELL STATUS PRODUCTION (START/RESUME)	WATER SHUT-OFF
COMMINGLE PRODUCING FORMATIONS RECLAMATION OF WELL SITE CONVERT WELL TYPE RECOMPLETE - DIFFERENT FORMATIC	other: Request for APD Extension
Enduring Resources, LLC respectfully request an extension to the expiration date of the FROM: 9/17/2008 TO: 9/17/2009 Approved by the Utah Division of Oil, Gas and Mining Date: By:	his Application for Permit to Drill
NAME (PLEASE PRINT) Alvin R. (Al) Arlian TITLE Landman - Reg	gulatory Specialist
SIGNATURE DATE 9/5/2008	
(This space for State use only) COPY SENT TO OPERATOR Date: 9.23.2008	RECEIVED SEP 17 2008
(5/2000) Initials: 45 (See legislations on Reviews Side)	200

(See Instructions on Reverse Side)

DIV. OF OIL, GAS & MINING



Application for Permit to Drill Request for Permit Extension Validation (this form should accompany the Sundry Notice requesting permit extension)

API: 4304738273 Well Name: East Bench 11-22-31-32 Location: 524' FNL - 1801' FEL, NWNE, Sec 32, T11S-R22E Company Permit Issued to: Enduring Resources, LLC Date Original Permit Issued: 9/12/2006			
The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision.			
Following is a checklist of some items related to the application, which should be verified.			
If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes□No□			
Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes□No☑			
Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes□ No ☑			
Have there been any changes to the access route including ownership, or right-of-way, which could affect the proposed location? Yes□No☑			
Has the approved source of water for drilling changed? Yes□No☑			
Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes□No☑			
Is bonding still in place, which covers this proposed well? Yes ☑ No ☐			
Signature 9/5/2008 Date			
Title: Administrative Assistant			
Representing: Enduring Resources, LLC RECEIVED			

SEP 17 2008



Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA

October 19, 2009

Enduring Resources, LLC 475 17TH Street Ste 1500 Denver, CO 80202

Re: APD Rescinded – East Bench 11-22-31-32, Sec. 32, T.11S, R. 22E

Uintah County, Utah API No. 43-047-38273

Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on September 12, 2006. On September 17, 2007 and September 23, 2008 the Division granted a one-year APD extension. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective October 19, 2009.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

Diana Mason

Environmental Scientist

cc: Well File

SITLA, Ed Bonner

